

# Accounting Historians Journal

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Volume 36  
Issue 2 December 2009

Article 12

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2009

## Accounting Historians Journal, 2009, Vol. 36, no. 2 [whole issue]

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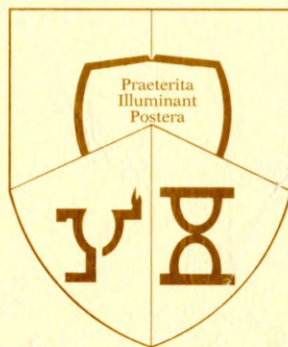
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### Recommended Citation

(2009) "Accounting Historians Journal, 2009, Vol. 36, no. 2 [whole issue]," *Accounting Historians Journal*: Vol. 36 : Iss. 2 , Article 12.  
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Published by  
The Academy of Accounting Historians



# **The *Accounting Historians Journal***

December 2009  
Volume 36, Number 2

Research on the Evolution of Accounting  
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## **The Accounting Historians Journal**

Volume 36, Number 2

December 2009

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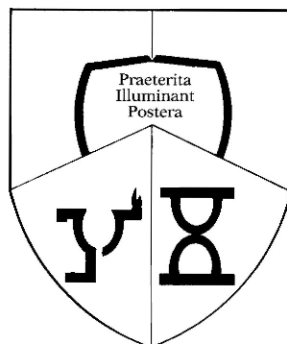
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December 2009  
Volume 36, Number 2

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The *Accounting Historians Journal* is a refereed, scholarly journal published semiannually in June and December, printed by the Birmingham Printing and Publishing Company, 3101 6th Avenue South, Birmingham, AL 35233. ISSN 0148-4182. *AHJ* does not assume responsibility for statements of fact or opinion made by its contributors.

**ACCOUNTING HISTORIANS JOURNAL**

**Volume 36, Number 2**

**December 2009**

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## ACCOUNTING HISTORIANS JOURNAL

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## ACCOUNTING HISTORIANS JOURNAL

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4. References are to appear in brackets within the text. Specific page numbers are mandatory for all direct quotes but are optional otherwise.
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## IN MEMORIAM, A SCOTTISH EULOGY

**DAVID A.R. FORRESTER**  
(1928-2009)

David was educated at St. Andrews and Oxford Universities. Having been involved in post-war Germany in U.K. military initiatives to promote the rebuilding of international relations, he became fluent in German and acquired an abiding interest in German culture and concern for Jewish refugees. After a short period in industry and some lecturing in further education, by which time he had qualified as a management accountant, David began the researching and teaching career at Strathclyde which constituted his life's work, remaining from 1964 to 1994.



David's research publications had an incredibly wide range. They covered late-Medieval and Renaissance accounting (Scottish included), the evolution of printed financial reports, the development of university audits, European state accounting of the Enlightenment (Camerarism), early railway accounting, the evolution of modern French accounting, the work of Schmalenbach, and the emergence of cash-flow accounting.

Such was his range that he even published an essay on "the Myth of the Lad o'Pairts in Scots Literature" in a book on the distinctiveness of Scottish university education. He was a highly independent spirit, and disseminated a number of his own works and the works of others under the publishing name of "Strathclyde Convergencies."

David's gifts as an academic were in research and in the inspiration of students and colleagues. Not a gifted lecturer by his own admission, he was capable of transmitting memorable and hilarious messages to students. David Forrester was the perfect example of the capacity of the academy to absorb and fully utilize the eccentrically brilliant, which indeed he was.

He will be remembered as a scholar of international scope for his encouragement of students and colleagues, this writer included. He was a warm, engaging, and lovable character, full of explosive laughter and generous to a fault. A unique and irreplaceable man, he is sorely missed

by Sam McKinstry (abridged)

## AN AMERICAN MEMORIAL TO DAVID A.R. FORRESTER

David Alexander Roxburgh Forrester passed away on April 21, 2009, at age 81. Forrester, a Scotsman, was an honorary life member of the Academy of Accounting Historians and a winner of the Academy's Hourglass Award in 1978 for his book entitled *Schmalenbach and After: A Study of the Evolution of German Business Economics*. Academy President Hanns-Martin Schoenfeld, in making the award at the 1978 Academy business meeting, commented that:

Forrester had made a very comprehensive and in depth scholarly analysis of Schmalenbach's contribution to accounting and business administration which had previously been almost totally neglected in the English-speaking world. Further, Forrester has succeeded extremely well in blending together a biography and a scholarly assessment of Schmalenbach's contribution. It is a model case for historical writing.

Sixteen of Forrester's many accounting history articles were published in collected form in the 1998 volume *An Invitation to Accounting History*. In an advertisement for "*An Invitation*," another life member of the Academy, Basil Yamey, wrote:

David Forrester's contributions to accounting history invariably are informative and stimulating and, in many cases, tap interesting and unusual sources of data and ideas. His contributions sometimes are unorthodox, even idiosyncratic, and none the less valuable for that.

At Forrester's memorial service, his fellow faculty colleague, Sam McKinstry, remembered Forrester as one of a pioneering generation of accounting historians. was a happy, bearded man, full of humor. McKinstry concluded his eulogy with these lines:

I also have a sneaking suspicion that David to some extent realized the advantages of his reputation as a difficult author or speaker; it was great to have a job where your mind could range wide and free, and where you could encourage the young to think for themselves, to challenge received wisdom.

The Academy of Accounting Historians has lost an eccentric life member, and the accounting history community will not be the same for that loss. Forrester's book-length volumes are widely held in libraries; for example, each of the Schmalenbach books is available in over one hundred U.S. libraries. Other of his monographs are also available and offer insights into subjects that have been little studied. Those looking for ideas for new projects will have their creative minds tweaked if they will examine the works of the late David A.R. Forrester.

by Dale L. Flesher (abridged)

*Accounting Historians Journal*  
Vol. 36, No. 2  
December 2009  
pp. 1-29

## **2007 Vangermeersch Award Winner**

Phillip E. Cobbin  
UNIVERSITY OF MELBOURNE  
ROYAL AUSTRALIAN ARMY PAY CORPS

### **“THE BEST BRAINS OF THE PUBLIC ACCOUNTING WORLD”: THE RESTRICTED MEMBERSHIP OF THE ARMY ACCOUNTANCY ADVISORY PANEL, 1942-1945**

*Abstract:* The events threatening to engulf Australia as the Japanese imperial forceS continued their push through southeast Asia caused enormous concern for the Department of the Army as civilian and uniformed staff struggled to cope with large increases in manpower and expenditure responsibilities. The department moved, in January 1942, to create an expert panel of accountants to provide advice with a view to overcoming these problems. This paper focuses uniquely on a small group of individuals brought together for their expertise in accounting drawn exclusively from the practitioner ranks of the Institute of Chartered Accountants in Australia. The paper draws attention to the fact that, while several of those invited to serve had “inside” knowledge and experience during World War I (1914-1918), only those holding the designation of chartered accountant were invited to participate, seemingly ignoring the great potential available from the wider profession of the day.

#### **INTRODUCTION**

In January 1942, the Australian Department of the Army (hereafter the department or simply the army) moved to “enlist” the help of a small element of the Australian accounting profession in an endeavor to strengthen expenditure controls

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**Acknowledgments:** Comments from participants at the 18th annual conference on Accounting, Business, and Financial History, Cardiff, 2006 and seminar attendees at the Australian National University and the University of Adelaide are greatly appreciated. I would also like to thank Christopher Napier, whose editorial suggestions have significantly improved the paper. Acknowledgment is also made to the Army History Unit for providing financial support.

and other procedures necessary to provide manpower and materiel<sup>1</sup> to the military forces in various theaters of war in which Australia was engaged. After two and a half years of hostilities, and with the conflict drawing closer to the Australian mainland,<sup>2</sup> Minister for the Army Frank Forde, with the support of Prime Minister John Curtin, sought to bring together a small group of highly respected, hand-picked senior accounting practitioners whose task it would be to provide advice to departmental officers on problems that had been hindering the military in the war effort.

There is little extant history of the wartime contributions of this or any other group of accountants and the senior departmental staff with whom they worked. Official war histories, published and unpublished [Holder, 1946; Hasluck, 1952; Butlin, 1955; Murphy, 1955; Andrews, 2001; Grey, 2001; Palazzo, 2001], pay little attention to their work. Histories of the accounting profession in Australia [Australian Society of Accountants, 1962; Graham, 1978; Marshall, 1978; Linn, 1996], the larger firms [Falkus, 1993; Armitage, 1995], and biographical material on the key participants [Burrows, 1996; Carnegie and Williams, 2001] similarly contain little detail of voluntary contributions to the war effort by accountants.

The provision of voluntary accounting services to government in times of conflict was neither a purely Australian phenomenon, nor was it confined to this department or this conflict. The British government had a voluntary accountancy advisory body in place during World War II [Stacey, 1954, pp. 178-179], and the Department of Defense in Australia also had a part-time

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<sup>1</sup> A term used widely in military circles referring to the supply of material and equipment to defense forces, it specifically excludes the manpower component.

<sup>2</sup> The seriousness of the strategic military situation is central to an appreciation of the increasing desperation that was enveloping all aspects of Australian society at the time. Despite trenchant opposition from Winston Churchill, Prime Minister Curtin in mid-1941 finally arranged to have the First Australia Corps re-deployed from the Middle East to the Australian mainland. One division was sent and lost with the downfall of Singapore. On December 7, 1941, Japan declared war and bombed Pearl Harbor. Japanese imperial forces landed in the Philippines on December 10, 1941 and had moved on to Rabaul in Papua New Guinea and Portuguese Timor by mid-January 1942. The Port Moresby garrison was reinforced with the deployment of two battalions of militia (the fabled 39th and the 53rd) in January 1942. In an address to the nation on December 11, 1941, Curtin characterized this as "the gravest hour of our history." He went on to declare that Australia could only rely on the U.S. for salvation as the U.K. would be unable to provide adequate support in the event of a Japanese invasion. The first Japanese bombing of Darwin did not occur until the evening of February 19, 1942.

voluntary body operating during World War I. An Advisory Accountancy Panel had been created in the Department of Supply and Development under the Supply and Development Act just before the outbreak of hostilities in 1939. A related panel also existed within the Allied Works Council through the middle years of the war. Interestingly, neither of the other two “fighting service” departments, the Navy and the Air Force, pursued similar initiatives during World War II. Voluntary service by the accounting profession had also for some time been provided to a range of government departments associated directly with prosecuting the war effort. This service was coordinated by and provided largely through the Central Register of Accountants (CRA), which had been established nationally in July 1940.<sup>3</sup> Involved in this initiative were the major accounting bodies of the time – the Institute of Chartered Accountants in Australia (ICAA), the Commonwealth Institute of Accountants (CIA), the Federal Institute of Accountants (FIA), the Association of Accountants of Australia Inc. (AAA Inc.), and the Australasian Institute of Cost Accountants (AICA).

Drawing on primary-source archival material retained in the National Archives of Australia (NAA), together with material from other archives (the Royal Australian Army Pay Corps Museum, ICAA archives), the paper highlights how a select group of professional accountants was in effect drafted into a strategic advisory role as the Army Accountancy Advisory Panel (hereafter AAAP or simply the panel). The panel’s mission from mid-1942 until its demise shortly after the end of hostilities in December 1945 was to reshape accounting and finance procedures within the army. The paper documents discussions undertaken and the decisions made at the most senior levels in the department, from the suggestion of a panel to the first conference where the decision was taken officially to create the panel.<sup>4</sup> In so doing, the paper initially highlights the decision to turn, at a time of great crisis, to the Australian accounting profession to staff the panel. It then looks at the criteria that were applied in the selection and appointment process.

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<sup>3</sup>Department of the Army, minutes of conference held at Victoria Barracks, Melbourne, dated July 1, 1940 [NAA: MP508, 236/702/104]

<sup>4</sup>Department of the Army, record of conference, Army HQ, Victoria Barracks, Melbourne, January 21, 1942, document undated, p. 12 [NAA: MP742, 65/701/220]

## CHALLENGES FACING THE DEPARTMENT AND THE NATION

While there is little detail in the archive of technical issues confronting the department at the time, unquestionably the main problems related to complications emerging from the need to manage expenditure of increasingly large sums of public monies at a time when the department was experiencing a constant drain of trained personnel to active service. The controls over expenditure in terms of both acquisition and dispersal of resources were accepted as adequate in times of peace but were proving problematic in a period of unexpected expansion necessary to meet the demands of war. Unfortunately, the constraints imposed on the department had conspired to render it most difficult to move departmental procedures in a timely fashion from an entirely peacetime to a wartime footing. Difficulties confronted by the department are best illustrated by reference to comments made by the minister when addressing, for the first time, members of the proposed panel. Briefing them on the changes that were occurring, the minister indicated [Record of Conference, January 21, 1942, p. 1] that in the two years of conflict:

The strength of the Army had increased from a Permanent force of 5,000...[and] a Militia force of...80,000... to present full-time strength of approximately 500,000 men including the AIF [Australian Imperial Force], located in various theatres throughout the Empire and in a number of areas in the Pacific, and the AMF [Australian Military Forces] at stations throughout Australia and adjoining islands.

To illustrate further the magnitude of the changes having an impact on systems within the department, the permanent secretary, F.R. Sinclair, reported in the same forum that the six-fold increase in manpower had been accompanied by huge increases in expenditure. In respect of 1942, for example, he reported [Record of Conference, January 21, 1942, p. 1]: "Prior to the war ... Department Estimates – Navy, Army and Air [combined] ... in 1938 was £63,000,000. And now ... Army Estimates ... alone ... is £137,000,000 ... and we may find ourselves £30,000,000 overspent."

Actual expenditure for the army in 1941-1942 amounted to £187,000,000 and, by 1942-1943, this figure had grown to £298,000,000 [Commonwealth of Australia, 1946, p. 703], exacerbating further the problems faced. The dangers inherent in such rapid expansion were apparent in respect of the

department's ability both to "deliver to the troops" and to thwart those seeking to exploit lapses in procedure. The secretary then made the pertinent observation [Record of Conference, January 21, 1942, p. 9]:

Anyone who has gone through the last war immediately says 'look out for trouble.' You cannot expect to spend £150,000,000 per year without having every crook in the community trying to get as much as he can. ... From my point of view they are there, and they are getting it.

The minister concluded his comments with the observation [Record of Conference, January 21, 1942, p. 4]: "Such an increase and such a dispersal over these wide areas must bring in its train many problems of a magnitude that in normal peace time few ... in any class of business would have been called upon to handle."

As if to focus attention of the meeting, the secretary then directed his comments to where he believed the real problem lay. He asked, rhetorically, whether "the systems are good." [Record of Conference, January 21, 1942, p. 4]:

I think ... [you] will agree with me when I say some are good, some are not. ... The government does feel very great concern that – firstly, the systems in operation are sound; secondly, if those systems are sound, are they appropriately applied, and thirdly, that we are really achieving economy in our objective in time of war.

The uncertainty and concern inherent in these comments would not have been lost on those present. That there were serious weaknesses within the department was beyond doubt. The inference then was that considerable attention needed to be paid to systemic problems that were emerging and that expert guidance was needed to formulate modifications to procedures to alleviate strains on the systems.

#### INITIAL ACTION – THE APPOINTMENT OF CHIEF MILITARY ACCOUNTANTS

Towards the end of 1941, attention of senior management in the department was focusing on possible high-level additions to the organizational structure within the accounting and finance sections with a view to improving operating efficiencies and service delivery. A preference for chartered accountants is apparent at this early juncture. The organization and staffing of finance/accounting positions at very senior levels within the

army emerged as a major concern for J.T. Fitzgerald,<sup>5</sup> chief finance officer (CFO), in a departmental memorandum of January 8, 1942. As part of a wider-ranging consideration of departmental structures in the lead up to the creation of an advisory panel, Secretary Sinclair and Fitzgerald had discussed “the appointment of Chartered Accountants of high standing to controlling positions in District Finance Offices.”<sup>6</sup> Besides indicating the need for these new posts within senior management ranks, both officials were signaling at this early stage a high-level preference for senior, practitioner chartered accountants, thereby providing the foundation for all subsequent appointments. The proposal, as outlined by Fitzgerald, was to introduce a new layer of senior management interposed between himself and the existing second line of management, district finance officers (DFO), positions held by uniformed officers of field rank.<sup>7</sup> DFOs were responsible for the administration of the district finance offices, also referred to as the AFOs, in each military district, at seniority levels similar to the chief accountant, paymaster-in-chief, and the director of financial review.<sup>8</sup> The new positions were to be designated chief military accountants, and the criteria for appointments reflected the seniority of the positions within the existing departmental structure. In the end, these roles were never formally created and no appointments made.

The intention was for two appointees to “immediately undertake the higher control and general organisation of the District Finance Office,” and “be given full power, above that of the District Finance Officer, to direct and control the whole organisation and administration of the District Finance Offices concerned”, without “removing from District Finance Officers their responsibility for control of expenditure or their powers of approval of expenditure.” Fitzgerald believed that positions at this level of seniority in the department could only be offered to chartered accountants “with very high qualifications and attainments” [Fitzgerald to Sinclair, January 8, 1942]. The minister for the army subsequently concurred on the status of the appointments, reiterating the need to appoint “two Chartered

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<sup>5</sup> J.T. Fitzgerald was not related to A.A. (later Sir Alec) Fitzgerald who appears later in this narrative.

<sup>6</sup> J.T. Fitzgerald, chief finance officer to F.R. Sinclair, secretary, Department of the Army minute paper, January 8, 1942 [NAA: MP742, 65/1/358, G65/701/209]

<sup>7</sup> In the Australian army, field rank includes major, lieutenant colonel, colonel, and brigadier.

<sup>8</sup> Department Chart, Organization of the Finance Branch, December 1945 [document no. LHQ/MISC/9805A, source: RAAPC Museum, item not catalogued]



Accountants of high standing and qualification.”<sup>9</sup>

Appointments were to be made initially within the second and third military districts (2MD and 3MD) respectively, the two largest districts where “the problems to be solved ... are of considerably greater magnitude than in other Districts” [Forde to Harvey, January 13, 1942]. Appointments to remaining districts would be made as needs arose. At the time, 2MD covered the Sydney/New South Wales region, while 3MD took in the Melbourne/Victoria region. Army Headquarters – Commonwealth Forces, strategic, operational, and administrative was located within 3MD at Victoria Barracks, Melbourne where it had been since federation in 1901. When the panel was operational, it was also located within 3MD for the duration of the war.

### THE EMERGENCE OF THE PANEL

Fitzgerald’s memo of January 8, 1942, in which the positions of chief military accountants were first proposed, was effectively the catalyst for the creation of the panel. As CFO, he also recommended to the secretary that a conference be held between representatives of the accounting profession and the department “to discuss questions relating to the organisation of District Accounts Branches with particular reference to accounting methods.” The proposal was for the president and registrar of the Chartered Institute of Accountants (*sic*) and the chairman and secretary of the Central Committee of the Commonwealth Register of Accountants (*sic*) to meet with the finance member of the Military Board (J.T. Fitzgerald) and the permanent secretary “to discuss questions relating to the organisation of District Accounts Branches with particular reference to accounting methods.” There is no evidence that this meeting took place so that the composition of the group that met subsequently was based on Fitzgerald’s recommendation of four public accountants, “who had experience with Military Accounting in the last war” [all quotations from Fitzgerald memo to Sinclair, January 8, 1942]. These four would be invited to accept membership of the panel. Those recommended were W.P. Minnell and J. March Hardie, chartered accountants of Sydney, E.A. Hamilton, chartered accountant of Adelaide, and J.F. Hughes, chartered accountant of Melbourne, all with extensive experience with government accounting. All but Hughes had provided uniformed

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<sup>9</sup>F.M. Forde, minister for the army, to C.B. Harvey (eventual chair of the advisory panel), Department of the Army letter, January 13, 1942 [NAA: MP742, 65/1/358, 3889]

service to the army during World War I. Significantly, all were practitioner members of the ICAA.

Sinclair's immediate and enthusiastic response to Fitzgerald the following day, which set in motion the eventual establishment of the panel, conveyed ministerial approval for the proposal and (i) suggested letters of invitation to the individuals named, (ii) set a date for the initial conference, (iii) speculated at possible ministerial attendance, (iv) indicated the need for a press announcement,<sup>10</sup> and (v) requested a letter to the prime minister outlining details of the proposal.<sup>11</sup> The resulting letter to the prime minister over the signature of the minister articulated briefly the justification for the panel "whose function will be to examine, consider and advise on questions relating to the finance and accounting organisation and methods of the Army Accounts Offices."<sup>12</sup>

The minister expanded the membership of the panel to include "a[nother] member nominated by the Institute of Chartered Accountants in Australia" [Forde to Curtin, undated], thereby extending further the importance of the ICAA in department deliberations. Advice was also provided to the prime minister indicating that positions (i) were honorary, (ii) should not unduly encroach on members' time, and (iii) would require traveling allowances to be paid for attendance away from home cities. The first conference of the panel was set for January 21, 1942, at Army HQ, Victoria Barracks, Melbourne. In closing his letter to the prime minister, Forde suggested the panel's first item of business should be the appointment of chief military accountants in 2MD and 3MD as proposed earlier by Sinclair and Fitzgerald. A slightly modified and personalized version of this letter was forwarded to C.B. Harvey, chartered accountant of Melbourne, inviting his participation on the panel in his capacity as president of the ICAA.<sup>13</sup> Harvey, who at the time was also chairman of the General Committee of the CRA, was to be the fifth member of the panel, which he would ultimately chair.

<sup>10</sup> It subsequently appeared in *The [Melbourne] Age* of January 21 and January 22, 1942, p. 3.

<sup>11</sup> F.R. Sinclair, secretary to J.T. Fitzgerald, finance member, Department of the Army minute, January 9, 1942 [NAA: MP742, 65/1/358, G65/701/209]

<sup>12</sup> F.M. Forde, minister, to J. Curtin, prime minister, Department of the Army letter, undated, Army Registry date stamp only January 14, 1942 [NAA: MP742, 65/1/358, 65/701/209, C70-10/1/42]

<sup>13</sup> F.M. Forde, minister for the army to C.B. Harvey of Messrs. Fuller King & Co., Department of the Army letter, dated January 13, 1942 [NAA: MP742, 65/1/358, 65/701/209, 3889]

Harvey, who had had no involvement, uniformed or otherwise, with the defense forces before this appointment, was, however, a practitioner chartered accountant.

The panel prior to the initial meeting therefore included Minnell, March Hardie, Hamilton, Hughes, and the later-invited Harvey. In order to fulfill the preliminary suggestion by J.T. Fitzgerald regarding representation from the CRA, A.A. Fitzgerald, chartered accountant of Melbourne, was nominated. One appointment still remained outstanding before the first conference, that being, as per the suggestion of the minister, another "member nominated by the Institute of Chartered Accountants in Australia" [Forde to Curtin, undated]. This position was not filled until February 24, 1942 when the nomination of W.E. Savage, chartered accountant of Brisbane, completed the appointment process.<sup>14</sup> At this point, all proposed members of the panel were members of the ICAA as principals in private practice.

### TERMS OF REFERENCE

The objective of the panel had been articulated on several earlier occasions by departmental officers and, in each instance, the articulation was consistent as to intent although wording varied slightly. The initial proposal by the CFO on January 8, 1942 was for the panel "to discuss questions relating to the organisation of District Accounts Branches with particular reference to accounting methods" [Fitzgerald to Sinclair, January 8, 1942]. The minister subsequently amended this slightly "to examine, consider and advise on questions relating to the finance and accounting organisation and methods of the Army Accounts Offices" [Forde to Harvey, January 13, 1942]. The "terms of reference," as presented on the agenda, refined this further "to consider and advise the Department of the Army in questions relating to the finance accounting organisation and methods of the Army Accounts Offices."<sup>15</sup>

Initially, the proposal was to limit the panel's role to DFOs whereas the final proposal was extended to take in the full Army Accounts Offices (AAO). This was a significant extension but, as will be seen, was not designed to limit the reach of the panel. The second difference lay in the area of coverage. The initial

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<sup>14</sup> J.T. Fitzgerald to F.R. Sinclair, approved and signed by J.M. Fraser, assistant minister, Department of Defense Coordination (copy of) inwards tele-printer message, dated February 24, 1942 [NAA: MP742, 65/1/358, G65/701/242, M827]

<sup>15</sup> Department of the Army: conference agenda for January 21, 1942, undated [NAA: MP742 67/701/220, p. 1]

proposal referred only to accounting methods, but the ministerial suggestion was to give attention and coverage to finance and accounting organization and methods. Interestingly, in the final terms of reference in the agenda, the word *and* between finance and accounting is missing [Conference Agenda, January 21, 1942, p. 1]. Whether this was intentional is not known. However, reading the terms of reference with the extra conjunction makes greater technical sense as within the department at the time, there were both finance and accounting functions. To confuse matters further, in his introductory remarks to the inaugural conference of the panel, the minister referred to “financial accounting organisation and methods” [Report of Conference, January 21, 1942, p. 2] rather than finance accounting. Whatever the real intention, it is clear that the panel would be considering accounting as well as finance matters and not simply accounting matters associated with finance.<sup>16</sup>

From the outset, the status of the panel was to be purely advisory with the department reserving the right to act as it sought fit on advice given. The department was indicating that it would consider advice tendered, but decisions as to action and/or implementation would remain within the department's remit and would not be delegated to the panel. The panel was to “submit its recommendations to the Secretary who in turn would communicate decisions back to the panel” [Conference Agenda, January 21, 1942, p. 1]. In terms of the direction the panel would take and the matters it would consider, the agenda is unequivocal that these were to be determined by the panel. Flexibility was offered as the panel was to have “wide powers under its terms of reference and will be given the appropriate opportunity to initiate action and to investigate at its discretion” [Conference Agenda, January 21, 1942, p. 1]. The breadth of the powers vested in the group at this point was substantial indeed, but was, nonetheless, initially limited to the AAOs. While this proposal ceded responsibility for workload direction and decisions entirely to the panel, the department did, however, retain a right of referral. In this way, the “Secretary or the Finance Member of the Military Board” [Conference Agenda, January 21, 1942, p. 1] could refer matters they felt needed attention by

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<sup>16</sup>This is borne out by a later decision to change the title of the panel to incorporate the word “finance.” As of October 14, 1944, the panel was reconstituted under ministerial directive and renamed the Finance and Accountancy Advisory Board, Department of the Army, terms of appointment paper, dated and signed by F.M. Forde, minister for the army [NAA: MP742, 65/1/358].

the panel. The referral option was somewhat circumscribed by an override mechanism where the approval of the panel was needed for a successful referral. For the referral to be received successfully, it would also have to be judged by the panel to fall within its terms of reference.

While the attention of the panel eventually devolved on the AAOs, where the major problems were believed to be more profound and where the department was looking for maximum direction and assistance, actual boundaries to enquiry were not to be so specific. The “question of the extension of the activities of the Panel beyond Army Accounts Offices” [Conference Agenda, January 21, 1942, p. 1] was included as a subsequent follow-up issue for consideration. This agenda item suggests that if the panel “should at any time wish to make a recommendation” on activities which stretched beyond the AAOs, then “they may make representation ... outlining the reasons ...” [Conference Agenda, January 21, 1942, p. 1]. It appears in the first instance that the department was to restrict the area of interest of the panel but was mindful of investigations moving beyond these limits to areas such as ordnance-stores accounting and accounting within the remits of the quartermaster-general and the master-general of the ordnance. Each of these functions fell outside the direct responsibility area of the AAOs, but each had a specific link through supply of materiel to the wartime operational activities in which the forces were engaged. From an estimates and expenditures perspective, however, they all fell within the remit of the Finance Branch.

To carry out its likely workload, the panel was to be given wide-ranging access to departmental personnel for advice and assistance both at headquarters and in the various DFOs. In keeping with the spirit of independence that the department was keen to imbue in the panel, few constraints were imposed on members in the pursuit of their work. The only restriction related to the priority of departmental work. Finally, administrative matters such as (i) scheduling of meetings, (ii) appointment of a chairman, (iii) business activities, (iv) clerical assistance, (v) accommodation, and (vi) appointment of a secretary<sup>17</sup> were

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<sup>17</sup>The panel was given full authority to appoint a secretary and the subsequent appointment of J.K. Little, a non-practicing chartered accountant, who was at the time deputy general manager of the Melbourne *Argus* newspaper [Burrows, 1996, p. 19], was subject only to ministerial approval and Department of Treasury reference on the issue of salary. [J.K. Little to F.R. Sinclair, letter dated March 23, 1942 acknowledging ministerial approval of his appointment [NAA: MP742, 65/1/358, G65/701/250].

all to be decisions of the panel. The department was to have no role in these processes, and in this area, the agenda portrays a sense of the panel being left to its own devices. While this was the intention on the part of the department, there was little likelihood of this proving to be a major impediment to the members as they were all individuals of standing and capacity who would have little trouble making the panel work.

Additional issues for immediate action not notified in advance included (i) the idea of “a subsidiary Panel in each [military] District” [Conference Agenda, January 21, 1942, pp. 2-3], and (ii) whether there should be a representative from each state on the central panel. If the panel believed these proposals to be acceptable, it was to recommend accordingly. The representation on the panel at the time of the meeting reflected a Melbourne-Sydney bias with three members from Melbourne (Harvey, Hughes, and A.A. Fitzgerald) and two from Sydney (Minnell and March Hardie). Hamilton from Adelaide and Savage from Brisbane were the only representatives outside the two large military districts. While the four most populous states were represented, there is no evidence of an intention to maintain a representational balance between states nor was a decision taken at this early stage to establish subsidiary panels within the states. The idea was dismissed as unworkable.

### FURTHER EVIDENCE OF DEPARTMENT PREFERENCES

To underline further the status of the ICAA in the minds of the departmental officials, the chartered body drew attention to announcements in the press of the appointment of the panel in its monthly journal, *The Chartered Accountant in Australia* [February 20, 1942, p. 334]. A further indicator of the “estrangement” of other accounting bodies is the absence of any mention of the creation of the panel in, for example, the monthly journal of the CIA, *The Australian Accountant*, around this time despite the fact that A.A. Fitzgerald, a panel member, was the editor of this journal. Either the creation of the panel was ignored completely as an event or the other accounting bodies were simply uninformed about the development.

Further evidence of the status of the ICAA within the department came shortly after the panel started work. In April 1943, the question of statutory authority of the panel was raised by the secretary in an enquiry to the Attorney-General’s Department. Sinclair indicated, in a letter to the department, a desire on the part of the minister for the army “for statutory authority to be

given to the creation of the Panel.”<sup>18</sup> Advice was also sought at the time of the need for a national security (AAAP) regulation to that end. One version of the regulations drafted for this purpose acknowledged the standing of the ICAA. Proposed Regulation 4(1) stated: “the Minister may appoint ... consisting of practising members of the Institute of Chartered Accountants in Australia, and such other person as the Minister thinks fit.” Further, in a second version of the draft regulations, Regulation 4(2) stated that “the member of the panel who is President of the Institute of Chartered Accounts (*sic*) shall be Chairman of the Panel” [Sinclair to secretary, Attorney-General’s Department, April 2, 1943]. A presumption on the part of the department that the president would automatically consent to serve is problematic but further underlines the status of the ICAA in the minds of department officials. It also provides further evidence explaining the selection of Harvey to the panel and his appointment as chair of the panel.

### THE FIRST CONFERENCE

The group’s first conference, on January 21, 1942, at Victoria Barracks, Melbourne, was attended by Sinclair, J.T. Fitzgerald, L.C. James, chief accountant (finance), and Colonel (later Brigadier) S.B. Holder, chief accountant (AIF), representing the department, together with the six panel nominees (Savage had not at this stage been appointed.). The minister was also present to commence proceedings. In his opening remarks, he commented on the dramatic changes that had engulfed the department and the fighting service since the outbreak of hostilities. Not surprisingly, the major problem nominated by the minister related to the complexities associated with the expenditure of large sums of public money and the “many difficulties of great perplexity” [Report of Conference, January 21, 1942, p. 2] that had been encountered as a consequence.

After the opening formalities, the minister reinforced, by reference to the terms of reference in the circulated agenda, the desire on the part of the government to establish a working group unfettered in its activities. He observed [Record of Conference, January 21, 1942, p. 2]:

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<sup>18</sup>F.R. Sinclair to the secretary, Attorney-General’s Department, Department of the Army letter, dated April 2, 1943 [NAA: MP742, 65/1/358, 65/1/94, 62279]. On advice from the commonwealth solicitor-general, this security regulation was not finalized as it was considered to be unnecessary.



The terms are advisedly wide as it is not my desire that a Panel so constituted should be hampered in any way by merely dealing with odd questions which might be referred to it, but when constituted, it would have sufficiently wide powers under its Terms of Reference to give it such authority to initiate action and investigate, at its discretion any matter which it considers of sufficient importance to require its attention.

The minister was reflecting the philosophy of the department that was to underpin the creation and work of the panel; however, these comments conceded that the area of interest may be much wider than indicated in earlier communications. Accordingly, panelists would have had little doubt that their powers of inquiry and investigation extended across the full range of departmental activities.

Following the minister's early departure from the conference, Sinclair assumed the chair and, before opening proceedings for general discussion, provided additional expansive introductory comments that further explained the problems facing the department. He also provided an interesting and pertinent, albeit vague, account of a "lobby of interests" ranging against the department generally and the impact that was being felt by the requirements to follow laid-down department procedures. To illustrate the point, he referred to a view at large that suggested, "The tendency is, with Japan knocking at the ramparts, and earlier, when the war first started, for the military mind to say – To hell with control, to hell with finance, let's get on with the war" [Report of Conference, January 21, 1942, p. 4].

He went further, observing "the military mind is saying that we must not allow finance to have any consideration in the show at all" [Report of Conference, January 21, 1942, p. 4]. As an experienced and prudent senior public servant, Sinclair accepted the frustrations of the frontline commanders who were desperate for more men and materiel, but argued "it takes five years at least to prepare equipment for a modern army" [Report of Conference, January 21, 1942, p. 4]. At the same time, and in the full knowledge of the difficulties presently facing the department, he was acutely and immediately aware of problems that would likely eventuate if such a view held sway. Sinclair was attuned not only to the accountability role with which both he and his department were charged, particularly in regard to expenditure of public funds, but also to the responsibilities enshrined within the Audit Act and Treasury Regulations. The views of operational commanders would not, nor could they be permitted to,



override this responsibility short of an invasion of the Australian mainland.

## DISCUSSION

*Selection Criteria Applied:* Resolute action to bring the department's systems and procedures to a condition where they would satisfactorily meet the operational demands for materiel by forces on the front-line was necessary, and so it is not surprising that advice was sought from outside the department. That an advisory panel was created as the means to achieve this objective was to be expected as this strategy had been used on many occasions in the past. Having decided upon an externally staffed advisory panel, the decision to turn to the accounting profession is also not surprising. Reliance on an expert body of knowledge in the circumstances of the time is axiomatic and indicative of what Brint [1994, p. 40] refers to as "expert professionalism" that "implied ... the ability ... to solve problems based on disciplinary training ... [and] that the training and skills received were highly valued" by the department.

Indeed, the profession was well placed within the business community and Australian society generally because, as Loft [1986, p. 137] argues, accounting had, in the decades prior to the war, "come to play an important role in the working of modern society." It was also in a position to play a "constitutive role" [Loft, 1986, p. 167] at an exacting time in the history of the nation and a pivotal moment in the conduct of the war. Having determined upon an advisory panel staffed by members of the accounting profession, it is little wonder the department was specific regarding the individuals to whom it turned from within the profession. In order to expedite formation and maximize benefit from this initiative, both Sinclair and J.T. Fitzgerald appear to have readily agreed the qualities necessary for appointment to this key body. The criteria that were considered critical were commitment through past service and present status within the accounting profession.

Individuals from the ranks of the accounting profession possessing two primary criteria were considered. The first of these was a background of "service" either within the army during World War I or the inter-war years, or in other government spheres. This requirement, in part, drew upon close and enduring associations that had been forged in and since the war. This expectation was subsequently extended to public service more generally. The second criterion, that potential members of the

panel should be practitioner chartered accountants, was more specific in application and was the criterion applied without variation to all individuals appointed to the panel.

*Military and Other Service Affiliations:* Army service applied to three of the first four individuals nominated. Minnell, a Sydney-based practitioner, had held a senior post in army finance during the previous war, serving as DFO at 2MD. In this uniformed position, he held the rank of lieutenant colonel. March Hardie had a similar background. Also Sydney-based, he too held a post at 2MD in the Finance Branch at the same time, later serving in a similar capacity at Army HQ Melbourne with the same rank. Hamilton was the first invitee at variance from the initial pair as he was a practitioner from Adelaide. His army service background was, however, not dissimilar, as he had served as DFO at 4MD Adelaide with the rank of major. Hughes, a Melbourne-based, specialist tax practitioner, as the final invitee in the initial group, had a different background. He had held no service appointment, uniformed or otherwise, at any time before the creation of the panel. He is cited as having experience in the Taxation Department, and this government service appears to have been instrumental in his invitation. Neither of the next two members of the panel was required to demonstrate government service. Appropriate public service sufficed. The chairmanship of the panel eventually devolved upon Harvey a week after the approaches made to the initial four. Harvey was also a practitioner from Melbourne, and although his invitation extended the regional representation, it appears there was no commitment to regional balance per se. His public service amounted to chairmanship of the Central Council of the CRA. Rejected as medically unfit for service during World War I, the final member of the panel, A.A. Fitzgerald, like Harvey, performed no uniformed or civilian government service up to the time of the creation of the panel. He had served on the Royal Commission into Water Supply (Victoria) in 1936-1937, had been financial advisor to the State Commission of Enquiry into the Victorian Railways in 1939, and was intimately involved in the affairs of the profession nationally, holding several senior posts in different associations.

The prior military service of Minnell, March Hardie, and Hamilton was central to the relationships and networks that had developed between these three and the two most senior public servants. J.T. Fitzgerald, who was CFO of the department at the time, had an extensive history of active uniformed service and other service postings in the department prior to this very

senior appointment. During World War I, he attained the rank of captain as DFO at 1MD Brisbane following service at Gallipoli and on the western front in France. In the inter-war years, he moved to 2MD where he held a similar post rising to the rank of lieutenant colonel. The coverage of the key military districts, Minnell at 2MD, March Hardie at 2MD and later 3MD, Hamilton at 4MD, and J.T. Fitzgerald at 1MD and 2MD would indicate close working relationships and familiarity within and between them as a group. F.R. Sinclair, as permanent secretary of the department, is not recorded as having held a military-designated post nor as having served in uniform, but as a relatively junior official in government service in earlier years, he had contact with some of these individuals. He alluded to this fact and acknowledged accordingly in his introductory comments made to the first conference when he paid respect to Mr. Hardie “under whom I had the privilege of working in the last war” [Report of Conference, January 21, 1942, p. 4]. In a similar vein, and following the opening formalities of the first conference, the minister recognized officially the contributions made by Minnell, March Hardie, and Hamilton during World War I and also acknowledged the contribution made by Harvey, A.A. Fitzgerald, and Hughes in other areas of public service.

Finally, in respect of the military, Minnell, March Hardie, Hamilton, J.T. Fitzgerald, the later-appointed A.E. Barraclough, and the panel’s secretary Little (together with Colonels Holder, Fordyce, Bennett, and Newton, mentioned later) were all commissioned officers in the Australian Army Pay Corps (later Royal Australian Army Pay Corps). Membership of this corps would have provided strong fraternal as well as professional contacts between each of the individuals.

*Professional Affiliations and the “Chartered” Designation:* The crucial criterion in the final selection of the panel depended on the notion of the practitioner chartered accountant. Both chartered and non-chartered practitioners, providing fee-for-service advice to government and private-industry clients across a wide range of areas including auditing, financial reporting, and systems development, built up considerable bodies of knowledge and expertise. The existence of these reserves of experience is reflective of what sociologists readily identify as one of the key traits of a profession [Millerson, 1964, p. 5; Johnson, 1972, p. 25; Larson, 1977, p. 181]. This trait, which is labeled succinctly by West [1996, p. 82] as “specialist knowledge,” was the resource to which department officials sought to gain access.

Limiting their reference to practitioners is therefore not surprising based on the original expectations outlined by the department. The requirement for members to serve without financial recompense, that panel duties not encroach upon their normal work loads, and that they be required to travel interstate from time to time would have imposed considerable burdens on non-practicing members engaged in regular employment, the conditions of which were likely already to be excessive because of the demands of wartime. In this way, the decision to focus specifically on practitioners was sound, and Loft's [1986, p. 167] observation that "the qualified accountant operating from his professional office was [best] equipped to do the job" is fitting. That they were "masters of their own time" [Larson, 1977, p. 235] meant that they were also particularly well suited on a practical level to engage in this work.

The department chose not to avail itself of the diversity that existed within the accounting profession between the practitioner chartered and non-chartered practitioner accountants, but turned to the numerically inferior, practitioner chartered accountants. To understand why the department imposed this secondary requirement that panel members should be practitioners and why this proved to be so central in the thinking of senior officials within the department requires an appreciation of the state of the accounting profession in Australia at the time.

Contemporaneous with the establishment of the panel in 1942, "professional" accounting in Australia was characterized not only by the practitioner/non-practitioner divide but also a number of different representative organizations. While there had been constant amalgamation and rationalization through the half century leading to this point [Gavens, 1990], the profession in 1942 consisted predominantly of the CIA, the FIA, the AAA(Inc), and the AICA, together with the relatively recently established ICAA. The fractured nature of the profession was further characterized by an additional five minor associations [Gavens, 1990, pp. 396-397], each of which would eventually be subsumed within other associations or simply dissolve. The ICAA had emerged as a presence in Australia in February 1928 following the granting of a royal charter. This milestone, which was achieved following a long and sometimes bitter period, was "borne of struggle and compromise, not to mention ... difficult liaisons" [Poullaos, 1994, p. 219]. The Australasian Corporation of Public Accountants (ACP), which had been established earlier as a national association based in Sydney in 1908, attained the charter much to the chagrin of other associations that had tried

and failed at several attempts in the previous decades. From a professional perspective, the charter was the prized possession, and “the symbol *par excellence* of professional status in Britain’s sphere of influence.” [Poullaos, 1994, p. 3]. It was also, as Loft [1986, p. 166] claims, the “ultimate seal of social approbation,” a status still largely intact today. The disappointment felt by those who had failed on several earlier occasions engendered bitterness and division that was to remain within the Australian accountancy scene for many decades to come.

The journey to the granting of the charter was as much about the divide between practitioners and non-practitioners as it was about regional or other differences. The ACP largely represented the public practice side of accounting from 1908 onwards, whereas accountants employed in business and government were largely represented by a range of alternative bodies. To overcome substantial opposition to the charter request from other accounting bodies, the ACP, as promoter, was compelled to compromise on the practitioner/non-practitioner issue and, according to Gavens [1990, p. 394], “substantial protection was given to non-practising members.” This was designed to protect the non-practicing members within membership ranks; however, the years between granting the charter and establishment of the advisory panel in the army witnessed the (re-)ascendancy of practitioner members within the institute. There is little doubt that the status of the institute had grown considerably since granting of the charter and that the institute had worked assiduously to reposition itself as the leading practitioner body in the years immediately following formation. The fervor with which the institute and its officials pursued this goal suggests they were endeavoring to achieve at least hegemony over private practice in Australia. In reality, their ambition likely extended beyond hegemony to (occupational) “closure,” a prospect consistent with and widely covered in the sociology literature [Carr-Saunders and Wilson, 1933; Witz, 1992; Macdonald, 1995; Ross, 1996]. Attainment of these goals was achieved by building on the standing of the chartered accountant designation within the business and wider community, a standing bequeathed to the Australian profession by the body in the “mother country,” the Institute of Chartered Accountants in England and Wales. Consequently, in January 1942, the ICAA was an association focused on practicing accountants rather than those employed in business and government, a situation that was to persist into the second half of the 20th century.

The willingness to engage with the ICAA and the confidence

shown in its practitioner members in the formulation of the panel was evident from decisions taken by department officials and the minister and can be seen as an endorsement of the success enjoyed by the institute in its endeavors to build the profile and differentiate itself on the basis of its practitioner strength. As noted earlier, the mooted appointment of chief military accountants in the various military districts was the precursor to the creation of the panel; the overriding criterion for these appointments that they be chartered accountants "with very high qualifications and attainments" [Fitzgerald to Sinclair, January 8, 1942] amply demonstrates this point. This commitment remained unaltered throughout the life of the panel as changes to personnel occurred.<sup>19</sup>

Individuals finally invited were the earlier-listed Minnell and March Hardie of Sydney, Hamilton of Adelaide, and Hughes of Melbourne. To this group were added Harvey and A.A. Fitzgerald of Melbourne and W.E. Savage of Brisbane. While all of these men were chartered accountants, they were all drawn from the practitioner ranks of the ICAA, were all principals in private practice, and had all achieved a degree of prominence in business circles during the inter-war years. Each member of the panel held the senior status of fellow within the institute, a status neither easily attained nor readily awarded. With the exception of Hamilton who was a sole practitioner in Adelaide, the other members were all drawn from substantial accounting partnerships that were at the forefront of the profession of the day.<sup>20</sup> The firms of Hardie and Savage had substantial

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<sup>19</sup>Only two changes in personnel occurred. Hughes resigned based on a frank self-assessment of his contribution [Hughes to Forde, letter of resignation, October 27, 1942, NAA: MP742, 65/1/358 65/701/405]. A.E. Barraclough, practitioner chartered accountant of Barraclough, Fitts & Co. (later Touche, Ross & Co., ultimately KPMG Australia) Melbourne, was appointed to replace Hughes. Also with a military background, Barraclough served with the first AIF in France during World War I and was posted to a finance role prior to discharge as medically unfit for duty. At the time of his appointment to the panel, Barraclough was the chairman of the Central Advisory Accountancy Panel in the Allied Works Council within the Department of the Interior [Harvey to Sinclair, letter of recommendation, December 18, 1942, NAA: MP742, 65/1/358, 65/701/443]. A.A. Fitzgerald resigned to take up a full-time appointment with the Department of War Organisation of Industry [A.A. Fitzgerald to Forde, letter of resignation, May 4, 1943, NAA: MP742, 65/1/358, 65/701/405]. No appointment was made to replace A.A. Fitzgerald.

<sup>20</sup>March Hardie's firm, H.P. Allard, Way & Hardie, was a long-established firm from which Coopers & Lybrand emerged in Australia [Falkus, 1993, p. 4]. Hughes' firm, Buckley & Hughes, and Savage's firm, Walter E. Savage & Co., also became part of Coopers & Lybrand. Harvey's firm, Fuller King & Co., was the firm through



pre-existing linkages well before the outbreak of war “as agency links between the two first appeared in 1925” [Falkus, 1993, p. 41]. In addition to the panel members, the ranks of the ICAA also provided the secretary to the panel, J.K. Little, who, as a senior employee of the *Argus* newspaper in Melbourne, was a non-practicing member of the institute.<sup>21</sup>

As to whether any of the panel members were members of other accounting bodies appeared to be of no consequence to the department. Representation of and from the wider accounting profession figured in the minds of the officials only in respect of the CRA, when J.T. Fitzgerald suggested initially that the chairman and general secretary be invited to discuss the proposed panel, along with the senior representatives of the ICAA. While the nomination of A.A. Fitzgerald satisfied both criteria, his appointment fulfilled the earlier commitment regarding the CRA. In this sense, his position was different in that he was the only member of the panel “nominated” by an external body, while all other members were invited by the department. It is unclear whether ICAA membership, the nomination of the CRA, or a combination of both were the defining characteristics on which the department acted with respect to A.A. Fitzgerald. Unlike his fellow panel members who retained membership only of the ICAA, A.A. Fitzgerald’s interests spread much wider. In addition to membership of the ICAA, he was a past-president of the CIA and editor of its monthly journal, *The Australian Accountant*. His letter of acceptance, forwarded in the name of the secretary of the CRA,<sup>22</sup> indicates membership of three accounting bodies, including the chartered institute. It is also pertinent to recall that Harvey, who was appointed to the panel in his capacity as the president of the ICAA, also held the chairmanship of the General Committee of the CRA.

While the department sought representation from the ICAA and the CRA “as representatives of the accountancy profession,” words of caution are necessary. Although it would be reasonable to regard the institute as *a* representative of the profession, it is not accurate to assert that the institute was *representative* of the profession. As a practitioner-focused body, it had a relatively

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which Arthur Andersen entered the Australian market in 1961. A.A. Fitzgerald’s firm, Fitzgerald & Tompson, was later to become part of Ernst and Young.

<sup>21</sup> He was later to become senior partner at Fuller King & Co., Melbourne [Burrows, 1996, p. 16].

<sup>22</sup> C.W. Anderson, secretary, Central Register of Accountants to F.M. Forde, minister for the army, letter, January 20, 1942 [NAA: MP742, 65/1/358, G65/701/209, C70/10/1/42]

narrow base within the profession. The idea that the CRA might represent the “rest” of the accounting profession or was representative of the wider profession was flawed as its role was quite specific. It acted as a registration body in the first instance, and then as a liaison agency between individuals who had registered for voluntary service and the departments to which they would provide service. It was not a professional accounting body, nor did it have a mandate to represent the profession. That Sinclair and J.T. Fitzgerald chose this approach suggests a high level of respect for the practitioner chartered accountant, on the one hand, but, at the same time, it indicates a sense of loyalty to the CRA that reflected neither its brief nor its status. The army was an important consumer of the voluntary services provided through the CRA, so both men would have been well acquainted with its operations. It is therefore difficult to believe that they had a genuine view that the CRA was representative of the profession as they were both well attuned to the wider professional accounting community. J.T. Fitzgerald was himself a qualified accountant holding membership in a rival body, the FIA, although he was not a chartered accountant. Sinclair, as the most senior public servant, is not known to have held membership in any accounting bodies but had been closely associated with members of the profession for several decades. Interestingly, a number of subordinate officials within the department were chartered accountants, including Colonel S.B. Holder,<sup>23</sup> who held the post of chief accountant AIF; Lt. Colonel G.L. Bennett, chief inspector of accounts; Colonel D. Fordyce, DFO – 3MD; and Lt. Colonel A.C. Newton, DFO – 5MD. However, there is no evidence to suggest that any of these senior officers were consulted in the panel’s creation process.

*Utilizing Network Contacts:* In creating the advisory accountancy panel to fulfill the role as initially laid out, both J.T. Fitzgerald and Sinclair drew initial support from a source of relative comfort. Resorting to contacts based firmly on past associations, particularly those borne of military service in periods of conflict and peace, was a safe approach to take. The initial invitations as extended to Minnell, March Hardie, and Hamilton in particular reflect this philosophy and demonstrate a willingness to tap into a network of contacts that had most likely survived and

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<sup>23</sup>Holder was a partner with Spry, Walker & Co., Melbourne (later Touche, Ross & Co., ultimately KPMG Australia, 1958) in the inter-war period. Holder saw active service in France during World War I.



prospered over a quarter of a century. While there was some geographical spread in respect of the contacts, with Sinclair and J.T. Fitzgerald in Melbourne, Minnell and March Hardie in Sydney, and Hamilton in Adelaide, the “tyranny of distance” that so often affected communication in Australia at the time would have been a relatively minor impediment given the army-related service of each of the individuals covered the key military districts and their common membership in the same Army corps. The contacts and working relationships within this environment were extensive, and as serving officers or officials, they would have been well acquainted on both a professional and personal level. That Minnell, March Hardie, and Hamilton all happened to be practicing chartered accountants proved fortuitous in that the department was able to gain access to a wider network of associates of which each of these individuals were members, the network of practitioner chartered accountants.

The approaches used by the department to identify members for the panel can be viewed from two different perspectives. First, it is possible the initiative emanated solely from within the department by tapping into contacts within existing networks based around prior military service. From this perspective, linkages within the network were utilized in a one-way direction. This would support the proposition that Sinclair and J.T. Fitzgerald conceived of the need for the panel to overcome the difficulties faced, formalized the concept, and presented it to the minister who embraced the idea with enthusiasm. The willingness shown by the invitees to participate would have been welcomed but confidently anticipated.

Alternatively, a more complex set of dynamics existed and operated. On the declaration of war, and Australia’s joining the conflict in 1939, many of the representative accounting bodies immediately and formally declared unconditional commitment to the war effort and promised access to expertise as and when the government indicated a need.<sup>24</sup> At the time, these offers were framed in broad and general terms giving little hint as to specific initiatives such as the panel. They do, however, convey a willingness and openness on the part of the profession to work very closely with any arm of the government in any form deemed appropriate. A number of specific initiatives were to emerge

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<sup>24</sup>See, for example, S.W. Griffith, president, Commonwealth Institute of Accountants, letter to J.A. Lyons, prime minister of Australia, December 1, 1938 and C.W. Anderson, registrar, Commonwealth Institute of Accountants, letter to secretary – Military Board, September 14, 1939 [NAA: A664, 524/402/590, 524/402/32].

at various times throughout the conflict; the panel is but one example. In light of the myriad linkages within the professional networks, some involvement on the part of the profession in devising the panel concept is possible and a reasonable expectation. Informal conversations and semi-formal consultations on a range of complex problems between department officials and those in the profession with whom they had close links may have been precursors to proceeding with a "panel" strategy. There is, however, no evidence to suggest accounting professionals or the professional bodies themselves played an initiating role in conceiving the idea for the panel or its subsequent creation,<sup>25</sup> although the possibility cannot be ruled out.

Besides the links based on past service, proponents of the panel more particularly determined that members should be chartered accountants of standing. Despite the fact that they were themselves members of alternative (and at times, competing) accounting bodies, senior departmental officials restricted membership by focusing exclusively on the practitioner ranks of the ICAA.

A decision based exclusively in the department with no reference to outside sources and with links to the network utilized in a single direction is the more likely *modus operandi* and explains the selection of the initial three (Minnell, March Hardie, and Hamilton) and maybe the fourth member (Hughes). Tapping into a network of familiar acquaintances initially identified a core of individuals. That they were each practitioner chartered accountants (coincidentally or otherwise) either created or reinforced within the department the stature of this category of accountants. The requirement then to restrict membership to practitioner members of the "premier" accounting body was a natural extension when the make-up was finalized. Having settled on the four core members of the panel, further informal discussions identified others from within the business community known to both sides but particularly the core panel members. That they were practitioners would be of little surprise as they would have tapped further into business community networks of which each was well acquainted.

The later appointments of Harvey and Savage are consistent with this explanation. As indicated earlier, both Savage and

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<sup>25</sup> The minutes of the ICAA General Council at the time contain one reference only to the panel through five years of the war [item #2966, dated May 19, 1942]. On this occasion, the Council recorded its congratulations on Harvey's appointment to chair the panel.

March Hardie had on-going agency links through their respective firms. Harvey's appointment was made expressly in his capacity as president of the ICAA, a post identified earlier by department officials as being of particular importance. At the same time, Harvey also held the additional high-profile position of national chairman of the General Committee of the CRA, a post domiciled in Victoria. The appointment of A.A. Fitzgerald, as noted earlier, is atypical as he is the only individual "nominated" by an outside body. While he was nominated by the CRA, his nomination is still, however, deeply embedded in the professional and business networks of the time as he was, with Harvey, a key figure in CRA activities in Victoria. His status as a chartered accountant within the ranks of the CRA, as well as his profile within this organization and on a wider national scale, suggests he was well known to Harvey. It is reasonable to assume that they were both well acquainted and that A.A. Fitzgerald's membership of the ICAA, particularly as a practitioner-member, was a relevant factor when the nomination was put forward by the CRA.

The sole change in personnel on the panel also matches the scenario as presented. The resignations of Hughes (October 1942) and A.A. Fitzgerald (May 1943) led to the appointment of A.E. Barraclough. As a practitioner chartered accountant, principal in private practice in a large, well-respected, top-tier Melbourne firm, he matched the profile of the earlier appointees extremely well. As noted earlier he also had an active-service, military background from World War I (western front, France), finishing the war in the Finance Branch. Barraclough was at the time of his appointment a fellow councilor on the National Council of the ICAA with Harvey, and he also held the position of state registrar of the institute in Victoria. It is reasonable to assume therefore that they were well acquainted, and so, on the recommendation of Harvey, it is not surprising that Barraclough's nomination was accepted without question as a safe replacement for the departing panelists.

### CONCLUDING COMMENTS

The histories of Australia's involvement in World War II contain very little recognition of specialist contributions made by the Australian accounting profession. Institutional histories of government departments and sections therein, accountancy societies, and large firms in Australia, together with the limited biographical material on leading accountancy figures, are

similarly deficient. This paper seeks to redress in part that deficiency, and, in so doing, to provide an account of the creation within the Department of the Army of an advisory accountancy panel. Formal establishment of the AAAP appears to have been a circuitous process, but the initiative was effectively concluded within a three-week period in early 1942. Great difficulties were being experienced at the time in meeting the requirements of the fighting services in a timely manner as a range of accounting and finance-related issues affecting materiel delivery were causing considerable problems. Coping with inadequate systems and controls combined with the requirement to administer greatly increased sums of public monies, all in the face of considerable pressure both from within and without the department, were proving to be particularly troublesome. These problems were judged to be of sufficient gravity to warrant consideration of creative options to overcome them. The Department of the Army turned, at a crucial point in the conduct of the war, to the Australian accounting profession when it settled upon an accountancy advisory panel as the strategy of choice. In so doing they turned to a group whom they judged to be in possession of expert skills necessary for the task.

The minister for the army and his two most senior public servants chose whom to call on to staff the panel. They were in little doubt as to the qualities they believed to be necessary for service on the panel. They felt a need to bring to the task men in whom they had confidence and men they could be assured would be up to the task and able to undertake the work with minimal delay. To this end, they set strict criteria for selection, and, in so doing, opened up the opportunity to gain access to a coterie of individuals at the pinnacle of the Australian accounting profession of the time.

In the initial phase of the appointment process, they turned to a reserve of men with strong public-service experience, typically linked to service within the Department of the Army – Finance Branch during World War I. Their experience was complemented by long-standing relationships between these former officers, now eminent accountants, and the existing senior officials of the department, some of whom had served under them in earlier times. A level of familiarity and comfort was evident which simplified the initial selection process. The acceptance and willingness to serve reflected this situation.

In practice, the primary criterion and preference proved to be the designation of chartered accountant. The proposal to appoint chief military accountants, the invitation to senior officials

of the ICAA and the CRA to the first conference, the suggestions on the part of the minister to expand the size of the panel, and the eventual decision to “appoint” the national president to chair the panel, together with the request for a national security regulation, all attest to the exclusivity attaching to this group of accountants over all others. At no time with any of these initiatives is there a suggestion that members of other representative bodies should be considered. Interestingly, the decision was taken and the resolve maintained despite the fact that the CFO and other officials were members of competing accountancy bodies.

By contrast, within the Department of Supply and Development, an Accountancy Advisory Panel had been created in late 1939 to monitor “matters relating to arrangements for ascertaining costs and for the control and limitation of profits in relation to the production of munitions” [Section 5(1) of the Supply and Development Act, 1939]. The membership of this body, with prime-ministerial imprimatur, was drawn widely from the five leading accounting societies of the time, ostensibly to tap into an expansive body of expertise in the area of costing and costing procedures. The strategy used in this instance to identify members for this panel was to invite each of the accounting bodies to nominate up to three member names for consideration by the government. The army minister’s comment to the first conference provides a plausible explanation for the different approaches as between the two departments. The minister intimated to the panel that he was drawing upon what he and the department believed to be the “best brains of the Public Accounting world” [Record of Conference, January 21, 1942, p. 3], and, by so doing, was in effect saying to the world at large that the best expertise resided within the ranks of the practitioner chartered accountants. A stronger endorsement of the standing of this group would be difficult to find.

While the designation “chartered accountant” proved to be fundamental in the final constitution of the panel, in reality the criteria were refined even further. On a number of occasions, when determining conditions for membership, the issue of enhanced standing within the profession was canvassed. To this end, being a practitioner chartered accountant proved to be merely a preliminary characteristic as only principals in private practice were appointed. The department was able to gain access to those at the pinnacle not only of their professional lives but also of the accounting profession at that time.

Despite the restrictive criteria effectively applied to the appointment process, the call to the accounting profession at

a time of seriously heightened anxiety in the Australian community is testament to the standing that accounting held at the time. That the department was prepared to entrust such a crucial role to the profession bears witness to the professionalism that had been building within accounting in Australia over preceding decades. It is also further evidence of what Anderson [2002] referred to as the growing maturation of accounting in Australia, and so the creation of the panel and the appointment of these senior practitioners to this role is a significant milestone in the development of accountancy in Australia.

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*Accounting Historians Journal*  
Vol. 36, No. 2  
December 2009  
pp. 31-74

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## CONCEPTUAL NATURE OF THE CORPORATE INCOME TAX

*Abstract:* This paper examines a long-standing controversy about the conceptual nature of the corporate income tax: whether it is an expense, a loss, a distribution of income, or some anomalous item. That controversy reflects in part different theories of the accounting entity.

Despite several authoritative pronouncements stating or implying that the tax is an expense, and despite an extensive discussion in the academic and professional literature, the controversy has never been fully resolved. Additionally, the tax is not characterized as an expense in corporate financial reports. The FASB's conceptual framework does not resolve this controversy, nor does the impending joint FASB-IASB revised conceptual framework.

Within the context of a coalesced (or fused) proprietary-entity theory of the accounting entity, this paper leads to the unsurprising conclusion that the corporate income tax is an expense, albeit an expense with some remarkable characteristics. Additionally, this paper shows how the conceptual nature of the corporate income tax impacts its income statement and cash flow statement reporting, and how a better understanding of this conceptual controversy might preclude fruitless controversies over other accounting issues currently troubling accountants and accounting standard setters.

### INTRODUCTION

Most academic and practicing accountants of a certain age are familiar with the long-standing controversy over the financial accounting for corporate income taxes. This controversy centered on whether to ignore deferred income taxes under the flow-through method or recognize them under some version of interperiod income tax allocation. It was largely resolved in the U.S. [ARB-23, 1944; APB-11, 1967; SFAS-96, 1987b; SFAS-109, 1992] and internationally [IAS-12, 1998; IAS-12 (Revised), 2006]

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**Acknowledgments:** The author gratefully acknowledges the help of librarian Rita Ormsby (Baruch College) in accessing many of the references. He also gratefully acknowledges the helpful comments and suggestions of Aloke Ghosh, Jan Sweeney, two anonymous reviewers, and Dick Fleischman. One anonymous reviewer was especially helpful. Any errors, of course, are the responsibility of the author alone.

in favor of comprehensive interperiod income tax allocation under the asset-liability method. Less well known and understood, however, is an even older controversy about the conceptual nature of the corporate income tax: whether the tax is an expense, a loss, a distribution of income, or some anomalous item, and how its conceptual nature affects its reporting on the income statement and cash flow statement.<sup>1</sup> In turn, the conceptual nature of the income tax relates to the entity concept in accounting and to the different theories of the accounting entity. The FASB conceptual framework does not resolve this controversy, nor does the impending joint FASB-IASB revised conceptual framework show much promise of resolving it [see FASB, 2008a, 2008b].

Surprisingly, the conceptual nature of the corporate income tax has never been fully resolved [e.g., Storey, 1966, p. vii]. Most accountants and accounting standard setters say that the corporate income tax is an expense. However, companies do not characterize corporate income taxes as an expense and do not report it among expenses on the income statement. Most companies report an income statement deduction as “provision for income taxes” or just “income taxes,” rather than as “income tax expense.” Moreover, this deduction may not include all of the income taxes for the period. Due to intraperiod income tax allocation, corporate income tax may be reported partly in discontinued operations, extraordinary gain or loss, other comprehensive income, prior period adjustment, and/or additional paid-in capital.

Initially, this paper examines the entity concept in accounting and three theories of the accounting entity: the proprietary, entity, and residual equity theories.<sup>2</sup> It then examines an exten-

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<sup>1</sup> Actually, how the conceptual nature of the corporate income tax affects its reporting on the cash flow statement is a relatively new controversy, at least in the U.S. As such, this controversy may be largely unfamiliar to most U.S. accounting academics and practitioners. See the section “Relevance of the Conceptual Nature of Income Tax to Income Statement and Cash Flow Statement Reporting.”

<sup>2</sup> There are three other theories of the business entity that have received considerable attention in the literature: the enterprise, commander, and the fund theories. However, these three theories are not especially relevant to the conceptual nature of the corporate income tax. For a further discussion of the enterprise theory, see Suojanen [1954], ASSC [1975], Hendriksen [1977, pp. 494-495], Kam [1990, pp. 314-318], and Schroeder et al. [2009, pp. 501-502]. For a further discussion of the commander theory, see Goldberg [1965, p. 161-172], Meyer [1973, p. 163], Hendriksen [1977, pp. 497-498], Kam [1990, pp. 312-313], Wolk et al. [2004, pp. 147-148], and Schroeder et al. [2009, p. 502]. For a further discussion of the fund theory, see Vatter [1947], Hendriksen [1977, pp. 495-496], Kam [1990, pp. 310-312], Wolk et al. [2004, p. 147], and Schroeder et al. [2009, p. 501].

sive literature on the conceptual nature of the corporate income tax and how its conceptual nature affects its reporting on the income statement and cash flow statement. This paper demonstrates that within the context of a coalesced (or fused) proprietary-entity theory of the accounting entity, the corporate income tax is best viewed as an expense. It also shows how a better understanding of this conceptual controversy may preclude fruitless controversies over other accounting theory issues currently troubling accountants and accounting standard setters.<sup>3</sup>

### ENTITY CONCEPT

A long-standing basic postulate of accounting is the entity concept; namely, economic activity is conducted through specific units or entities, and the financial accounting should be expressed in terms of a clearly defined entity, separate and distinct from the parties who furnish the funds [Paton, 1922, p. 16-17; Gilman, 1939, pp. 25-26; Paton and Littleton, 1940, p. 8; Vatter, 1947, p. 10; Moonitz, 1961, pp. 12-14; AAA, 1957, p. 537, 1965, pp. 358-367; Ball, 1988, p. 73; IASC, 2001, para. 8].<sup>4</sup> The entity concept has been defined in various ways as follows:

- The distinctive unit upon which accounting is based is the private business entity. The accountant looks upon business operations essentially through the eyes of the particular group of managers and owners. Accounting classifications and procedures are significant only as they are related to the conditions of the specific business organization [Paton, 1922, pp. 16-17].
- A unit of business is but a means of specifying the area of attention, a delimited and prescribed set of activities

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<sup>3</sup> Studying the history of this controversy illustrates Schumpeter's [1954, p. 5] concept of the filiation of ideas: "the process by which man's efforts to understand economic phenomena produce, improve, and pull down analytic structures in an unending sequence." To follow and extend Schumpeter, much more than in other disciplines it is true in economics (and accounting) that modern problems, methods, and results cannot be fully understood without some knowledge of how economists and accountants have come to reason as they do. As the subsequent discussion will demonstrate, this filiation of ideas process is especially true of the study of the unresolved controversy over the conceptual nature of the corporate income tax.

<sup>4</sup> Ball [1988, pp. 8-9] distinguishes between an accounting entity and a reporting entity. The distinction arises because many organizations comprise a number of distinct, identifiable, accounting entities but report as a single reporting entity. Examples include parent and subsidiary companies that report as a single consolidated entity in the private sector and governmental funds that report as a single governmental unit in the public sector.

which give rise to the kinds of data with which accounting is to deal [Vatter, 1947, p. 10].

- A business entity is a formal or informal unit of enterprise, a collection of economic goods and services and a group of persons, organized to accomplish certain express or implied purposes [AAA, 1957, p. 537].
- The economic unit that has control over resources accepts responsibility for making and carrying out commitments and conducts economic activity [Moonitz, 1961, p. 13].
- Anything that is viewed by an interested individual or group as having a separable and definable existence is an entity. The essence of an entity is its separate existence from a particular point of view [AAA, 1965, pp. 358-359].
- A reporting entity is any unit or activity which controls the utilization of scarce resources to generate economic benefits or service potentials, and which is sufficiently significant to warrant preparing general purpose financial reports for economic decision making and accountability [Ball, 1988, p. 73].
- A reporting entity is an entity for which there are users who rely on the financial statements as their major source of financial information about an entity [IASC, 2001, para. 8].
- A circumscribed area of business activity of interest to present and potential equity investors, lenders, and other capital providers [FASB, 2008b, para. S2].

A committee of the AAA [1965, p. 359] notes that the natures of the interests of individuals or groups which serve to identify entities and define their boundaries are many and varied. They may be circumscribed from a legal point of view; but they also may be defined from an economic, social, political, aesthetic, professional, or other point of view. Interestingly, the extant FASB conceptual framework lacks a concept of the reporting entity and the extant IASC Framework [2001, para. 8] discusses it only briefly.

Zeff [1961, pp. 96-97] and Stewart [1989, pp. 98-99] note two dimensions of the accounting entity concept, which they refer to as the “orientation postulate”: (1) the subject of financial statements, such as a business enterprise, which they refer to as the first sub-postulate; and (2) the users of those statements, such as creditors and investors, which they refer to as the second sub-postulate. Following Zeff and Stewart, in a May 29, 2008 *Preliminary Views* document jointly developed with the

IASB,<sup>5</sup> the FASB [2008b, para. 6] notes that general purpose financial reports provide information about a particular entity, which it refers to as a reporting entity; it then draws a distinction between the subject (entity) of general purpose financial reports and the users of those reports such as equity investors and lenders:

Those reports provide information about the entity's economic resources (i.e., its assets), claims on those resources (i.e., its liabilities and equity), and the effects of transactions and other events and circumstances that change an entity's resources and the claims on them. It is the entity itself that is the subject of financial reporting, not its owners or others having an interest in the entity.

The FASB [2008b, paras. 17, 22] notes that legal structure helps to establish the boundaries of the reporting entity because it helps to determine which resources, claims on those resources, and changes in those resources or claims should be included in the entity's financial reports. But it concludes that a reporting entity should not be limited to activities structured as legal entities. Rather, a reporting entity should be broadly described as a circumscribed area of business activity that would apply to a sole proprietorship, partnership, corporation, trust, branch, or group of entities.

In a separate May 29, 2008 Exposure Draft jointly developed with the IASB, the FASB [2008c, para. OB6] notes that an entity obtains economic resources from capital providers in exchange for claims on those resources. It concludes that "by virtue of those claims, capital providers have the most critical and immediate need for general purpose financial information about the economic resources of an entity." Thus, the FASB concludes that the subject of general purpose financial reports should be the entity, not its capital providers, and the primary users of those reports are all its capital providers, not just its equity investors.

#### CENTRALITY OF THE ENTITY CONCEPT IN ACCOUNTING THEORY

As Moonitz [1961, pp. 13, 31] notes, the significance of the entity concept to accounting is that it defines the area of interest

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<sup>5</sup>For succinctness, subsequent references in this paper are to the FASB rather than to both the FASB and the IASB; similarly, subsequent references to joint documents are to documents published by the FASB rather than to those published by the IASB.

and thus narrows the possible objects and activities and their attributes that may be selected for inclusion in financial statements. According to an AAA Committee [1965, p. 361], determining what data are relevant depends on the prior determination of the reporting entity. When a definable area of economic interest exists, it is possible to identify, accumulate, and report financial information about that entity distinct from all other information. This is the essence of the entity concept in accounting. Without such an entity, accounting is impossible.<sup>6</sup> Similarly, in its Preliminary Views, the FASB [2008b, para. 62] concludes that “the reporting entity concept should first determine what constitutes the ‘entity’ that is reporting, and only then should the asset definition (and other element definitions) be applied to that entity.”<sup>7</sup>

The primary concern of financial accounting is with entities that represent areas of economic interest to particular individuals and groups; that is, with entities whose activities involve the utilization of scarce resources. An economic entity could be a business, a governmental unit, or a not-for-profit organization; that is, any activity concerned with the administration of scarce resources. However, this paper is concerned only with one type of entity, the business corporation, because only this type of entity is subject to corporate income taxes.<sup>8</sup>

### RELATIONSHIP OF THE ENTITY CONCEPT TO OTHER ACCOUNTING CONCEPTS

The AAA Committee [1965, p. 360] notes that the entity concept is more fundamental than the concepts of going concern, money measurement, and realization. The application of these other concepts depends on the nature of the entity and the needs of the particular interested individual or group. On the other

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<sup>6</sup>Salmonson [1969, p. 51] alludes to a certain circularity in the definition of the accounting entity when he notes that the boundaries of the accounting entity depend solely upon the point of view taken. Since there are many different users of accounting information with differing points of view, there are many different and often overlapping entities.

<sup>7</sup>Most of the FASB *Preliminary Views* [2008b, paras. 29-161] document on the reporting entity addresses the issue of consolidated versus separate parent company financial statements. As such, that document is not otherwise relevant to the present paper on the nature of corporate income taxes and is not further examined.

<sup>8</sup>Certain partnerships may elect to be taxed as corporations under the Internal Revenue Code. Most of the issues addressed in this paper also apply to such partnerships.

hand, these concepts do not have significance apart from the entity. For example, the concept of going concern has no application to entities where the interest of the individual or group is liquidation. As to the concept of money measurement, a tract of timber may constitute an entity for which a meaningful accounting may be made in terms of board feet. Realization depends on the business entity assumed. Intercompany profits on upstream inventory sales are realized by the subsidiary at the time of sale to the parent company, but are unrealized by the consolidated entity until the inventory is resold to outsiders.

Similarly, periodic net income and its components only have relevance to specific accounting entities. For this reason, the entity concept is more fundamental than the concept of periodic net income. Without the accounting entity clearly defined, periodic net income cannot be measured and the conceptual nature of its components cannot be determined.

### DIFFERENT THEORIES OF ENTITY

Through the years, various authors have suggested different theories of the business entity for accounting purposes. This paper summarizes the proprietary, entity, and residual equity theories.<sup>9</sup> Thereafter, it examines the conceptual nature of the corporate income tax and how it fits into these three theories. However, as Zeff [1961, pp. 96-97] and Stewart [1989, pp. 98-99] note, none of these theories is completely satisfactory at determining the conceptual nature of the corporate income tax because none fully distinguishes between the subject being accounted for and the party for whose benefit the financial statements are prepared.

*Proprietary Theory:* According to Sprague [1907, pp. 46-50, esp. p. 49], an early advocate, under the proprietary theory, the accounting represents a reckoning by the proprietor for his own property.<sup>10</sup> In this view, the fundamental accounting equation is Assets – Liabilities = Owners' Equity.<sup>11</sup> The business entity is the

<sup>9</sup>The entity concept (a business entity exists apart from the personal affairs of its equity holders) is presumed by all three theories; they differ in how they view the business entity [Hendriksen, 1977, p. 490].

<sup>10</sup>Chatfield [1974, pp. 221-223] and Previts and Merino [1998, pp. 209-210] summarize statements of the proprietary theory that predate Sprague.

<sup>11</sup>The fundamental accounting equation is  $A-L=OE$ . However,  $A-L=Net\ Assets$ . Thus,  $OE=NA$ . In a 1989 monograph on the concept of equity, Kerr [1989, pp. 33-34] suggests that although net assets and owners' equity are measured in the same way and will always have the same amount assigned to them, they may



center of attention, but it is to the viewpoint of the proprietor that the accounting is directed. Implicitly, the business enterprise is the subject being accounted for, and the proprietor is the party for whose benefit the financial statements are prepared [Stewart, 1989, p. 102]. Under the proprietary theory, capital is viewed as a stock of wealth, and income is defined as the amount that can be consumed or distributed without reducing capital.

Chatfield [1974, p. 223] elaborates that under the proprietary theory, revenues immediately increase proprietorship, expenses immediately decrease it, and net income accrues directly as wealth to the owner. As a result, revenues and gains can be treated alike since all go to owner's equity and affect it similarly. For similar reasons, little distinction need be made between expenses and losses.

As Zeff [1961, pp. 97-105] notes, the proprietary theory was applied initially to the medieval merchant when most commercial activity was organized as time-limited, distinguishable ventures, such as voyages or caravans. When the venture was concluded, a profit or loss could be unambiguously calculated as the difference between the merchant's wealth at the beginning and conclusion of the venture. At that time, accountants did not separate business from personal affairs; their main concern was ascertaining the amount of changes in the merchant's wealth. The merchant was both the subject and beneficiary of the financial statements. However, with the evolution of capitalism, economic activity became organized increasingly as continuing business enterprises rather than as discontinuous trading ventures. Concurrently, accountants adopted the going-concern assumption, decided to separate business from personal affairs, and applied the proprietary theory to sole proprietorships and partnerships. Implicitly, the proprietorship or partnership became the subject and the proprietor/partners became the primary beneficiary(ies) of the financial statements.

However, the proprietary theory has long been applied to corporations by looking through the corporate veil and considering the stockholders collectively as the proprietary interest [Hatfield, 1909, pp. 144-183, esp. pp. 145-146]. The accounting thereupon becomes a reckoning by management for the stock-

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be regarded as separate concepts: "The concept of net assets is appropriate when attention is centered on the resources which are available to an entity whilst owners' equity is appropriate when attention is focused on the owners' interest in the enterprise."



holders' property. To use Zeff's construct [1961, pp. 105-106], the corporation became the subject and the stockholders became the primary beneficiary of the financial statements.

In criticizing the proprietary theory, Previts and Merino [1998, pp. 221-222] note that "the business entity concept (the fact that the legal entity existed apart from its ownership), was not questioned, only ignored, by proprietarists." Perhaps a more accurate criticism of the proprietary theory is that its advocates did not emphasize the distinction between the corporation as the subject and the stockholders as the primary beneficiary of the financial accounting. Nevertheless, the accounting for the corporation is completely separate from the accounting for the personal wealth of the stockholders under the proprietary theory.

Schroeder et al. [2009, pp. 498-499] find "significant [extant] accounting policies that can be justified only through acceptance of the proprietary theory." Ball [1988, p. 89] concludes that the proprietary theory predominates in practice, at least in Australia. Similarly, Hendriksen [1977, pp. 489-490] notes that the proprietary theory is implied in many extant accounting practices and terminology relating to corporations. For example, the net income of a corporation is often referred to as net income to stockholders.

Under the proprietary theory, revenues and expenses are simply increases or decreases in stockholders' equity, respectively. As a result, net income equals the change in stockholders' equity over the period other than changes due to additional contributions from or distributions to stockholders. Consistently, under the proprietary theory, corporate income taxes and interest on debt are viewed as expenses to be deducted from revenues to determine net income, whereas dividends are withdrawals of capital.<sup>12</sup>

*Entity Theory:* As Zeff [1961, pp. 106-107] notes, with the separation of ownership and control in the modern corporation [see also Berle and Means, 1932] came another shift in accounting emphasis towards the enterprise itself and away from the stock-

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<sup>12</sup> See Hatfield [1927, pp. 373-374] and Moonitz [1957, pp. 175-176]. Sprague did not address the accounting for corporate income taxes in his book, which bore 1907 and 1908 copyrights, when there was no federal corporate income tax in the U.S. The current federal corporate income tax emanates from legislation enacted in 1909, reaffirmed by the 16th Amendment to the U.S. Constitution in 1913, and subsequently amended. A federal corporate income tax was enacted in 1862 to help finance the Civil War, but it was repealed in 1872.

holders as the collective owners. But this shift was not complete under the proprietary theory, so it was argued, for under the proprietary theory, the stockholders' viewpoint remains the focus of the financial statements [see also Gilman, 1939, p. 48]. The entity theory, to be distinguished from the entity concept and the entity theory of consolidated financial statements [Moonitz, 1944],<sup>13</sup> was developed ostensibly to make this shift in emphasis more complete.

Paton [1922, pp. 84-89] is perhaps the first American to offer a comprehensive statement of the entity theory.<sup>14</sup> According to Paton, the business entity is not just the center of attention. Rather, the viewpoint of the business entity is the viewpoint to which the accounting should be directed. Under the entity theory, long-term debt and capital stock are considered more similar than different. Long-term creditors and stockholders are considered both separate and apart from the business entity itself (pp. 76-79). In this view, the fundamental accounting equation is  $\text{Assets} = \text{Liabilities} + \text{Stockholders' Equity}$ . As Kerr [1989, p. 5] notes, the distinction between liabilities and stockholders' equity is "one of degree rather than of fundamental differences."

Under the entity theory, according to Paton [1922, p. 259], net income is the "increase in *all* [creditor and stockholder] equities," and coincides with the viewpoint of the corporate manager:

To the manager, the particular manner in which the company is capitalized is a matter entirely outside the determination of operating net income. ... Net operating revenue [income] is then the excess of values

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<sup>13</sup>Under Moonitz's entity theory of consolidated financial statements, a parent and subsidiary are viewed as one economic entity with two groups of stockholders, the controlling stockholders of the parent company and the noncontrolling stockholders of the subsidiary. The FASB [2007b] largely adopted the entity theory of consolidated financial statements in SFAS No. 160. Prior practice was largely based on the parent company theory of consolidated financial statements. Unlike the three more pervasive theories of the accounting entity, the parent company and entity theories of consolidated financial statements apply solely to consolidated financial statements. Additionally, the same issues concerning the conceptual nature of income taxes and interest on debt arise under both theories of consolidated financial statements.

<sup>14</sup>Chatfield [1974, pp. 223-224] and Previts and Merino [1998, p. 222] summarize earlier statements of the entity theory. Interestingly, Paton [1922, pp. 61-68] espouses a managerial point of view, not the entity theory. However, numerous writers [Husband, 1938, pp. 242 *et passim*; Gilman, 1939, pp. 46-54; Vatter, 1947, pp. 5-7; Stewart, 1989, p. 102] refer to Paton's managerial point of view as his entity theory. This paper continues that practice.

received over purchased assets utilized in connection with product sold, and represents the increase in capital to be apportioned or distributed among all individuals or interests who have committed cash funds or other property to the undertaking.

Consistently, interest on long-term debt is viewed as a distribution of income similar to dividends on stock [Paton, 1922, p. 267]; neither is an expense to be deducted from revenues to determine net income under the entity theory.

In commenting on the entity theory, Chatfield [1974, pp. 225-226] elaborates that “if the corporation is functionally separate from its owners and creditors then it, not they, should be the center of accounting interest,” which implies a wider view not only of the business but of accounting activities generally. Additionally, Chatfield suggests that “the entity theory emphasizes corporate income and a more nearly economic idea of income measurement.” He notes that unlike the proprietary theory, under the entity theory:

Revenues and expenses are no longer simply increases or decreases in stockholder's equity. Revenues are compensation for services provided by the firm. Expenses measure the cost of services consumed in obtaining this revenue. Profit accrues to the corporation, not to its owners or creditors. Its disposition is up to the entity; income distribution is distinct from income finding [determination].

Staubus [1952, pp. 105-107] offers a different version of the entity theory from a managerial point of view. Under Staubus' version, “insofar as managers have a viewpoint towards the income of business that can be distinguished from the viewpoint of owners, distributions to creditors and owners, like distributions to employees [and taxes], are costs [expenses].” Wolk et al. [2004, pp. 144-145] observes that under orthodox entity theory:

... owners' equity accounts do not represent their interest as owners but simply their claims as equity holders. Similarly, net income does not belong to the owners although the amount is credited to the claims of equity holders after all other claims have been satisfied. Income does not belong to capital providers until dividends are declared or interest becomes due. In measuring income, both interest and dividends represent distributions of income to providers of capital.

Husband [1938, pp. 246-247, 1954, pp. 555-556] adds that under

a consistent application of the entity theory, stock dividends are income to the stockholders, although he finds this to be an inherent defect of the entity theory.

Zeff [1961, pp. 187-188] distinguishes Paton's version of the entity theory from Staubus' version (and subsequent elaborations) as traceable to a disagreement over the meaning of the word "entity": Staubus views the managers or the entity itself as the parties for whom the financial statements are prepared, whereas Paton does not establish either the managers or the entity as the dominant beneficiary of financial statements. Zeff characterizes Staubus' conception of the entity as the "institutional-entity view"; he characterizes Paton's managerial view of the entity as the "distributional-entity view." Because management acts in a fiduciary capacity in reporting to outsiders, not to itself, Zeff [1961, p. 205] concludes that the distributional-entity view of Paton is to be preferred over the institutional-entity view of Staubus.<sup>15</sup>

Zeff [1961, pp. 129-140, 188] also notes that, just as with the proprietary theory, it is useful under the entity theory to distinguish between the subject being accounted for and the party for whose benefit the financial statements are prepared. Implicitly, under Paton's conception of the entity theory, the business enterprise is the subject being accounted for and its capital suppliers, both creditors and stockholders, are the parties for whose benefit the financial statements are prepared [see also Stewart, 1989, p. 102].

Clark [1993, p. 26] suggests that because modern capital structure theory literature supports the notion that financing activity impacts operating cash flow and vice versa, corporate financial policy appears to affect firm value. Although this does not invalidate the idea that both bondholders and stockholders supply capital to the firm, it does raise doubts that debt can be viewed in the same light as equity as under the entity theory. Previts and Merino [1998, p. 213] add that although many view Paton's entity theory as an advance in conceptualizing the accounting entity, its underlying assumptions are inconsistent with private property rights and have never been accepted: "Accounting theory today continues to adopt a proprietary focus; that is, managers should maximize stockholders' wealth, rather than an entity focus."

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<sup>15</sup> Staubus' view and its elaborations is also a decidedly uncommon interpretation of the entity theory. Additionally, Staubus abandons his version of the entity theory in favor of the residual equity theory, discussed in the next section.

According to Paton's original formulation [1922, pp. 180-181, italics added], where the long-term creditors and stockholders are implicitly the beneficiaries of the financial statements, the corporate income tax is viewed as a distribution of income akin to dividends on stock:

Taxes in general constitute a coerced levy on net earnings (or capital if no earnings are available) ... The state virtually has a latent prior equity in the properties of every business enterprise; private ownership is not absolute. ... Income and excess-profits taxes furnish, of course, a clear case. Here the state is levying specifically upon net earnings (derived in general from the stockholders' standpoint) and *consequently such levies from an accounting view represent distributions of net revenue.*

However, Paton also notes that the corporate income tax could fall into one of four classifications – an expense, a loss, a distribution, or an anomalous item. He suggests that the tax “can best be considered a loss ... or a distribution ...; it cannot reasonably be viewed as an expense.” Similarly, Paton and Littleton [1940, p. 102] conclude that “interest and income taxes ... are not costs of producing the economic service which accounts for the revenue from sales.” But as a result of the higher tax rates of the 1940s, Paton [1943, p. 13] changed his mind and concluded that all taxes, both income taxes and property taxes are not an expense, loss, or distribution of income, but rather are an anomalous item that should be deducted from revenues to compute corporate net income.

Accordingly, the entity theory is subject to different interpretations. The treatment of corporate income tax under the entity theory is also subject to several interpretations, even by Paton, its developer. However, the prevailing interpretation is that the corporate income tax is a distribution of income under the entity theory.

*Residual Equity Theory:* As suggested initially by Staubus [1959], under the residual equity theory, the fundamental accounting equation becomes Assets – Specific Equities = Residual Equity, where specific equities include those of creditors and preferred stockholders. Staubus [1959, p. 8, italics in original] defines residual equity as “*the equitable interest in organization assets which will absorb the effect upon those assets of any economic event that no interested party has specifically agreed to absorb*”;

the residual equity holders “are that group of equity claimants whose rights are superseded by all other claimants.” Under the residual equity theory, common stockholders are viewed as having a residual equity in the income of the business and in the net assets upon final liquidation. According to Staibus, the focal point of investors’ interest in the income statement should be the change in the residual equity.

Meyer [1973, p. 117] notes that advocates of the residual equity theory consider the proprietary theory inadequate because it treats as identical the interests of various stockholder groups that are basically antagonistic to one another. Such antagonism results from the desire of the lowest ranking investors to minimize returns to the highest ranking investors while the latter seek to maximize these returns. The entity theory may be similarly criticized for ignoring the antagonism of creditors and stockholders.

Under the residual equity theory, because the common stockholders are viewed as having a residual equity in the income of the business and in the net assets upon final liquidation, the income statement should report the income available to the residual equity holders after all prior claims are met, including interest on debt, income taxes, and dividends to preferred stockholders.<sup>16</sup> Accordingly, income taxes and dividends to preferred stockholders are more akin to expenses than to income distributions. As a result, Meyer [1973, pp. 117-118] and Wolk et al. [2004, p. 146] suggest that the residual equity theory is a variant of the proprietary and the entity theories. Zeff [1961, p. 188] characterizes Staibus’ residual equity theory as having the entity as the subject and the common stockholders as the principal beneficiary of the financial statements.

Although U.S. and international accounting standard setters have not adopted the residual equity theory, it has considerable conceptual appeal as a more accurate description of the modern publicly owned corporation than either the proprietary or entity theories. Its conceptual appeal stems from its treatment of preferred stock as more similar to debt than to common stock. Moreover, because the FASB and IASB tentatively favor a basic

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<sup>16</sup>Hendriksen [1977, p. 493] notes an alternative and decidedly uncommon interpretation of the residual equity theory. Because the common stockholders’ only claim against the corporation is to receive dividends when and if declared, the residual equity in capital is not assigned to the residual equity holders. Both the initial capital supplied by the common stockholders and the retained earnings are equity of the corporation in itself.

ownership approach to the definition of equity, future adoption of the residual equity theory is not inconceivable.<sup>17</sup>

The conceptual nature of the corporate income tax is the same under the proprietary and residual equity theories; the income tax is an expense to be deducted from revenues to derive net income available to all equity holders under the proprietary theory and to residual equity holders under the residual equity theory. For this reason, advocates of the proprietary and residual equity theories suggest some of the same arguments for viewing the income tax as an expense. Moreover, the literature on the conceptual nature of the corporate income tax is usually in the context of the proprietary and entity theories, with little mention of the residual equity theory. This paper continues that practice in order to minimize duplication.

#### AUTHORITATIVE PRONOUNCEMENTS ON NATURE OF CORPORATE INCOME TAX

Since 1944, several U.S. authoritative pronouncements group corporate income tax with expenses and/or state or imply that it is an expense. However, these pronouncements do not explain why the tax is an expense.

For example, in Accounting Research Bulletin (ARB) No. 23 [1944, para. 3], the Committee on Accounting Procedure (CAP) states that “income taxes are an expense which should be allocated, when necessary and practicable, to income and other accounts, as other expenses are allocated.” That view was reaffirmed in 1953 by the CAP in ARB No. 43 [ch. 10, para. 4]. The CAP’s successor, the Accounting Principles Board (APB), reaffirmed that the corporate income tax is an expense in Opinion No. 11 [1967, para. 12(a)]. Similarly, the successor to the APB, the FASB, assumes that corporate income tax is an expense in SFAS No. 96 [1987b, paras. 26-28] and again in SFAS No. 109 [1992, paras. 35, 45-46]. However, all of these authoritative pronouncements merely assert or assume that the corporate income tax is an expense rather than a loss, a distribution of income, or something else without explaining why.

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<sup>17</sup> See FASB, *Preliminary Views* [2007a, paras. 16-49]. Under this basic ownership approach, a financial instrument is classified as equity only if it is the most subordinated interest in an entity and if it entitles its holder to a share of the entity’s net assets after all higher priority claims have been satisfied. All other financial instruments, such as forward contracts, options, and convertible debt, are classified as liabilities or assets. As a result, only the lowest residual interest in the entity is classified as equity. The basic ownership approach is fully consistent with the residual equity theory.



Even in its conceptual framework statements, the FASB discusses the nature of the corporate income tax only superficially. Financial Accounting Concept Statement (SFAC) No. 3 [1980, para. 65] and SFAC No. 6 [1985, para. 80] define expenses as “outflows or other using up of assets or incurrences of liabilities (or a combination of both) from delivering or producing goods, rendering services, or carrying out other activities that constitute the entity’s ongoing major or central operations.” Moreover, in discussing the characteristics of expenses, SFAC 6 [1985, para. 81, *italics added*] notes explicitly that income taxes are an expense:

Expenses represent actual or expected cash outflows (or the equivalent) that have occurred or will eventuate as a result of the entity’s ongoing major or central operations. The assets that flow out or are used or the liabilities that are incurred ... may be of various kinds – for example, units of product delivered or produced, employees’ services used, kilowatt hours of electricity used to light an office building, or *taxes on current income*.

In a fundamental sense, this SFAC 6 discussion of the characteristics of expenses defines away the controversy as to the conceptual nature of income taxes without indicating the reasons why income taxes are an expense rather than a loss, a distribution of income, or something else.

Additionally, SFAC 6 seems to distinguish between other expenses and income taxes as if to imply that income taxes may not really be an expense. For example, it [para. 137] defines transaction as “an external event involving transfer of something of value (future economic benefit) between two (or more) entities,” and distinguishes an exchange and a nonreciprocal transfer. In an exchange, both entities receive and sacrifice value, such as purchases or sales of goods or services, which ultimately become expenses or losses. In a nonreciprocal transfer, an entity incurs a liability or transfers an asset to another entity or receives an asset or cancellation of a liability without directly receiving or giving value in exchange. Importantly, SFAC 6 notes that impositions of taxes, like investments by owners, distributions to owners, gifts, and charitable or educational contributions given or received, are nonreciprocal transfers. In the context of different types of transactions, therefore, income taxes are in some ways more similar to distributions to owners than to expenses. So the conceptual nature of the corporate income tax has not been fully resolved by SFAC 3 or SFAC 6.



Interestingly, at one time, the SEC [1945, p. 151] suggested that the corporate income tax might be viewed more appropriately as a distribution of income rather than as an expense:

It is readily apparent that normal and excess profits taxes are computed as a part of taxable income. Unlike most expenses they exist if, and only if, there is net taxable income before any deduction for such taxes. There is much to be said therefore for the position that true income taxes are in the nature of a share of profits taken by the government. If it is desired to place emphasis on the necessity of deducting them in order to arrive at net profit available to shareholders, they may perhaps be called an expense – but in such cases they represent a very special class of expense, one that is incurred only by the making of net taxable income.

However, the SEC has always required corporations to treat the corporate income tax as a separate deduction from revenue to derive periodic net income. At no time did the SEC either require or permit the treatment of the corporate income tax as a distribution of income rather than as a deduction in computing periodic net income.

In summary, authoritative pronouncements in the U.S. treat the corporate income tax as an expense or deduction in calculating periodic net income, but without adequately explaining why.

#### NATURE OF CORPORATE INCOME TAX UNDER DIFFERENT THEORIES OF ENTITY

Through the years, numerous commentators have analyzed the conceptual nature of the corporate income tax, treating it either as an expense, a loss, a distribution of income, or an anomalous item, along the lines suggested by Paton [1922, p. 181]. The most common question is whether the income tax is an expense or a distribution of income. Many of these analyses have implicitly presumed one theory of the reporting entity, often without specifying which theory is presumed or to whom the financial statements are directed.

*Income Tax as Expense or Distribution of Income:* Paton [1922, p. 181], the first American writer to advocate the entity theory, suggests that the corporate income tax is a distribution of income, not an expense. Another early advocate of the entity theory [Seeger, 1924, pp. 103] elaborates that because the government is a partner in production and as such is entitled to a share of

the wealth produced, the income tax is a distribution of income, not an expense, and should not be deducted from revenue to determine entity net income.

Dewhurst [1972, pp. 42-43] also argues that the income tax is a capital distribution, which he implies is the same as an income distribution. He defines expense as the productive use of resources to generate revenue, where a causal and purposive relationship exists between expense and revenue; he defines loss as the unproductive use of resources. He notes that no relationship exists between income taxes and the receipt of government services or revenues earned. Because the income tax does not involve either the productive or unproductive use of resources or services to generate revenue, Dewhurst concludes that the income tax is neither an expense nor a loss. He also assumes that it is not a new category of revenue deduction. By a process of elimination, Dewhurst concludes that the income tax is a capital distribution.

Other writers are more circumspect in discussing whether the income tax is an expense or a distribution of income. For example, in discussing whether taxes of railroads are expenses or distributions of income, Hatfield [1927, p. 374] notes:

It is impossible to say that any one of these views is absolute and exclusive. ... If the stockholder has his dividends lessened by the taxes paid, but in all probability would pay no taxes were his funds invested, say, in bonds or mortgages, the taxes are, from his point of view, in no sense a distribution of profits. But where there is an income tax uniformly enforced, and the payment of taxes by the [rail]road works merely as a stoppage of that part of the income, it is not illogical to consider the tax as a distribution of part of the net profits derived from operating the road.

Similarly, Greer [1945, p. 96-97] notes that whether the income tax is an expense or a distribution of income depends on one's viewpoint. If the government is viewed as a part-owner, the income tax is a distribution of income; if it is viewed as a supplier of goods or services, it is an expense. According to Greer, the government is better viewed as a part-owner; the absence of government equity on the balance sheet reflects that its equity "is not in the property, but in the earnings, of the corporation."

Paton [1946, p. 86] finds persuasiveness in Greer's concept of the government as a part-owner that shares profits with stockholders. However, because the government makes no investment, and because taxes are a coerced levy, Paton finds

it unrealistic to view the government as an equity holder. Zeff [1961, pp. 155-156] is still more critical; he suggests that viewing the government as an equity holder that does not contribute funds is an ethereal notion:

Creditors ... and stockholders seek equity in profits ... but they also furnish funds. To the extent that it is desirable that 'equities' consist of a collection of homogeneous 'rights,' inclusion therein of a 'right' that is not attended by a contribution of capital is not to be recommended. By such inclusion, a party represented as realizing an infinite return on investment would be permitted to distort the aggregate return on investment of those parties who do provide some capital.

In support of treating the corporate income tax as a distribution of income, some entity theorists [e.g., Hill, 1957, p. 357] contend that its incidence is upon the stockholders, that the corporation in effect is paying a tax on the stockholders' income. Proprietary theorists [e.g., Hendriksen, 1958, p. 218] contend to the contrary, maintaining that the incidence of the tax is elsewhere. To add to the confusion, both Hendriksen [1965, p. 369] and Li [1961, p. 266] maintain that the incidence of the tax alone does not conclusively determine its conceptual nature, i.e., whether it is an expense or a distribution of income. Moreover, it has long been recognized [Harberger, 1962; Gravelle, 1995; Auerbach, 2005] that the incidence of the corporate income tax has not been determined conclusively either in theory or empirically.

Both proprietary and entity theorists recognize certain obvious differences between corporate income taxes and expenses in general. Proprietary theorists [e.g., Hendriksen, 1958, p. 217] maintain that the similarities outweigh the differences, whereas entity theorists [e.g., Paton, 1922, pp. 179-181] argue to the contrary. More specifically, proprietary theorists like Hendriksen [1965, p. 465] argue that income taxes, like other expenses, represent payment for services required by the entity to further its operations; they may be associated with the right to conduct a profitable corporation in a favorable business environment, certainly a valuable service supplied by the government. Entity theorists like Paton reject this contention, arguing instead that income taxes are coerced levies largely outside of managerial control, representing the latent prior beneficial interest of the government in every business entity. Moreover, these levies do not further the operations of the entity. To substantiate this

position, entity theorists note that unlike most expenses, income taxes are not apportioned in accordance with services received from the government; rather, they are apportioned and contingent on the existence of taxable income although the entity presumably receives the same services regardless of the amount of its taxable income and any tax thereon. Accordingly, entity theorists contend that income taxes cannot be viewed as measuring the value of services and, later, a cost of production or expense.

Additionally, although he views the corporate income tax as an expense and not as a distribution of income, Sprouse [1957, p. 374, *italics added*] notes that:

... the imposition of income taxes might be looked upon as a method of siphoning off a substantial portion of corporate income to finance the [government] services. ... From this point of view, income taxes might well be treated as a distribution of corporate income. ... This necessarily assumes that the incidence of the corporate income tax falls upon the incorporated institution; that the tax is not shifted forward in the form of higher prices for the corporation's product or shifted backward in the form of lower prices for the factors of production.

In refutation, some proprietary theorists, including Sprouse, argue that income taxes are an expense, even under a consistent application of the entity theory:

The state and federal governments are not corporate investors. Accordingly, the number of dollars which could be distributed to corporate equity holders without impairing their cumulative investment is clearly adversely affected by the imposition of income taxes. ... Income taxes are expenses ... an unavoidable cost of general business operations during a given revenue period.

Other proprietary theorists [e.g., Kelley, 1958, p. 214] note that to argue that income taxes are not a cost of carrying on a business enterprise and a determinant of net income "is to propose a concept of corporate net income which is illogical, contrary to common sense and contrary to universal business practice."

Taxes, whether levied on property or on income, constitute a basic cost of carrying on a business, which must be paid to the all-powerful sovereignty, the State, for the privilege of remaining in business. In no true sense is the State a partner in the enterprise; it is a sovereign

demanding periodic payments for the privilege of carrying on the activities of the corporation.

Still other proprietary theorists [e.g., Solomon, 1966, p. 201] argue that the non-proportionality of income taxes to services received or anticipated is irrelevant to their conceptual nature. Some degree of government activity is beneficial to earning revenue by providing something of value, if only a favorable environment. Another proprietary theorist [McLaren, 1947, p. 164] notes that:

The Federal government is still intended to be the servant of the business public – not the master; it contributes no capital, shares no losses, and is not an equity holder. Viewed realistically, income taxes must be regarded as a cost of doing business; they are payments for protective services rendered by the government which, over the long term, enhance or at least preserve business opportunities.

And still other proprietary theorists [e.g., Mateer, 1965, pp. 584-585] argue that the corporate income tax may be viewed as merely one way of allocating the cost of government among some of the corporations benefited. Even some entity theorists [e.g., Zeff, 1961, p. 168] conclude that income taxes “are the cost of establishing and maintaining a free economy within which private enterprise can effectively attempt to attain profitable results. Translated into microeconomic terms, income taxes are thus a cost of a firm’s revenues.”

Furthermore, the method of measuring the tax, its contingency on taxable income, is held by other proprietary theorists [e.g., Sprouse, 1957, p. 375; Moonitz and Jordan, 1963, pp. 477-489] to be irrelevant to its conceptual nature. Employee bonuses are often contingent on income; nevertheless, they are properly characterized as an expense, not a distribution of income.<sup>18</sup>

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<sup>18</sup>It has been noted that, consistent with the proprietary theory, the corporation might be viewed as an agent for its stockholders in paying the tax that is really a tax on the income of the stockholders; hence, the tax is a distribution of income, not an expense [Hendriksen, 1965, p. 395]. However, the incidence of the corporate income tax has not been determined conclusively either in theory or empirically, and the incidence of the tax alone does not conclusively determine its conceptual nature. Additionally, this is a decidedly minority interpretation of the proprietary theory. Blackie [1947, p. 203] rejects a similar notion that the corporate income tax is really a tax on customers that is collected by the corporation on behalf of the government: “Such an idea rests on a cost-plus method of reasoning which assumes that price is the product of an arithmetical process rather than the result of economic forces which frequently defy the adding machine. The corpora-

Even some advocates of the entity theory take this position. For example, Zeff [1961, p. 167] aptly notes:

... officers of many large corporations are voted bonuses by the directors on the basis of the profitability of the year's operations. Are these bonuses, therefore, a 'distribution of income?' The point of *reductio ad absurdum* would be reached very soon as more and more cost factors were found to have an affinity toward 'income.'

Indeed, even some advocates of the entity theory contend that the corporate income tax is an expense. For example, Li [1961, pp. 265-268, esp. p. 266] argues that, consistent with the entity theory, the corporate income tax is best viewed as an expense. The tax is imposed upon a corporation because it is a separate entity and because it enjoys the privileges and advantages of being a separate entity. Because the tax is directed at the corporation, it should be considered an expense of corporate administration. Hendriksen [1982, p. 165] also argues against viewing the income tax as a distribution, even if one otherwise subscribes to the entity theory. However, viewing income tax as an expense is not the prevailing interpretation of the entity theory.

Equally important, proprietary theorists [e.g., McLaren, 1947, p. 164; Moonitz, 1957, p. 175] note that income taxes are considered an expense by businessmen themselves and are viewed as such in the business decision-making process. Walgenbach [1959, pp. 582-583] notes that the courts and most rate-making regulatory agencies also adopted this viewpoint.<sup>19</sup> For many years, the majority of the accounting profession has also adopted this view, at least as reflected in authoritative pronouncements on the financial accounting for income taxes.

*Income Tax as Expense or Anomalous Item:* Most of the early writers debated whether the income tax is an expense or a distribution of income. However, following Paton's [1922, p. 181] suggestion, some writers debated whether the income tax

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tion does not have the power to pay taxes or wages or any other cost without limit. The U.S. federal income tax – levied on the corporation as such – is neither a sales tax upon the customers nor a personal tax upon the stockholders."

<sup>19</sup>In general, the courts have regarded the regular corporate income tax as an expense for determining net income, and the excess profits tax has been similarly regarded for ordinary net income determination purposes, but not generally for the rate-making purposes of the regulatory agencies [Walgenbach, 1959, pp. 582-583].

is an expense or an anomalous item, often without considering whether it might be a loss or a distribution of income instead.

For example, Chambers [1968, pp. 104-105] argues that income taxes are not an expense because they are not levied in proportion to the benefits received by governments. He also argues that the income tax is not an excise tax on the right to operate and earn income because loss companies also have that right but pay no income tax. Additionally, Chambers notes that income taxes are levied on taxable income, which differs fundamentally from accounting income. Because taxable income reflects fiscal and policy functions of governments, Chambers concludes that income taxes "can only be regarded as a form of discriminatory expropriation."

Barton [1970, pp. 4-8] supplements Chambers' argument that the income tax is an expropriation. He suggests that to understand the nature of the corporate income tax, one must examine its purpose and the manner in which it is levied. Barton notes that income taxes are levied on taxable income in order to raise revenue to finance government activities. The measurement of taxable income reflects government policies of raising revenue according to ability-to-pay, influencing the allocation of productive resources, and making the tax laws easy to administer. According to Barton, because it reflects government policy objectives and administrative simplifications, taxable income need have no relation to accounting income. As a result, corporate income tax is not related to specific transactions. For these reasons, Barton argues that corporate income taxes do not possess any of the characteristics of operating expenses.

Like Chambers, Barton also disputes the view that the income tax is an expense because it represents a payment for the right to conduct a profitable business in a favorable economic environment. He notes that unlike expenses, income taxes are not proportional to services received from the government. Some of the largest companies pay relatively little tax because of various tax incentives though they often use more public services than smaller companies. He also disputes the view that income tax is an expense even though it represents a cost of conducting a profitable business.

Additionally, Barton objects to the view that income tax is an expense because it fits the definition of expense as a reduction in proprietorship other than repayments to owners. Barton [1971, p. 173] finds that definition of expense to be too broad because it hides several important differences between items in the expense category and does not indicate the reason for



incurring expenses. For example, the definition lumps income taxes (which reflect the success of a company's operations), with sales taxes and bad debts (which relate to sales), and with wages and payroll taxes (which relate to the resources acquired by management to generate revenue).

However, Baylis [1971, pp. 161-165] aptly refutes Barton's arguments that the income tax is not an expense. He finds that Barton's criticism of the all-inclusive definition of expense does not mean that income tax is not an expense. He also finds Barton's and Chambers' term "expropriation" unappealing "because of its obvious link with the term appropriation."

In responding to Baylis, Barton [1971, pp. 173-174] argues that the real issue is whether the expense classification is the most useful one available. Instead of defining expense broadly as a reduction in proprietorship other than repayments to owners, he favors classifying non-owner outlays as revenue deductions, expenses of generating revenue, non-operating losses, and expropriations of profit. Barton argues that this four-way, mutually exclusive classification is more informative than classifying all non-owner outlays as expense.

Baylis [1971, pp. 162-164] counters that the government indirectly serves business by providing the valuable benefit of a favorable environment in which all may operate profitably and that income taxes need not be levied proportionate to the benefits received to justify classifying them as an expense. He observes that trade association membership fees are an expense although a larger company may pay twice as much as a smaller company without receiving twice the benefits. Similarly, the benefits received from paying income taxes may not be proportionate to the amount paid. "These items [trade association membership fees and income taxes] qualify as expenses; they certainly couldn't be called distributions of income."

Moreover, Baylis notes that, like temperature, income taxes are an environmental cost. If a business chooses to work in a cold locale, it would incur more heating costs. Both heating costs and income taxes are environmental costs of business operations; hence, both are expenses properly charged against operating revenues.

Baylis maintains that for accounting purposes, the classification of an expenditure is determined by the reason why the payer makes that expenditure, not by the motives or desires of the payee:

To suggest that income taxes are not an expense because the government has imposed them to provide revenue



for its own purposes, or to help reach desired fiscal and economic goals or to achieve a redistribution of income within the economy, and so on, is the same as saying that wages paid to an employee should only be treated as wages in the accounts [of the employer] if that employee utilizes his wages in some specified manner.

Finally, Baylis argues that the conceptual nature of the tax does not change because some companies pay more income taxes than other companies or because of the way the tax is computed. He disputes Barton's contention that income taxes are not an expense because they are not a cost deliberately incurred in anticipation of future benefits. He notes that some other costs besides income taxes, such as bad debts, are not deliberately incurred, are not a result of managerial choice, are not controllable, but are appropriately classified as expenses. Additionally, the fact that income taxes are compulsory does not demonstrate that they are compulsory distributions of income rather than expenses. Rather, Baylis argues that companies presumably have chosen to accept compulsory income taxes as a condition of being able to conduct business in a particular country.<sup>20</sup>

Wheeler and Galliard [1974, pp. 51-63] also argue that the corporate income tax is an anomalous item rather than an expense. They reject the argument that whether the corporate income tax is an income distribution or an expense depends on whether its burden falls on stockholders or someone else. First, Wheeler and Galliard note that the tax may be something other than an expense or income distribution. Second, they suggest that who bears the burden of the tax is an unresolved question. They conclude that previous studies and authoritative pronouncements offer no help in determining the nature of the income tax because they assume the problem away. They also argue that the various theories of the accounting entity do not determine the conceptual nature of the income tax because these theories lead to either ambiguous or contradictory conclusions [see also, Dewhirst, 1972, p. 44].

Rather, Wheeler and Galliard attempt to ascertain the conceptual nature of the corporate income tax by examining its essential characteristics. They argue that the corporate income tax is not a payment for the right to conduct business; that there

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<sup>20</sup>In support of this choice by companies, one could also cite the trend starting in the 1990s of American companies moving headquarters offshore to avoid federal income taxes. Presumably, those companies that do not move their headquarters offshore choose to continue to be subject to federal income taxes.

is no direct relationship between the benefits a corporation receives from income taxes and the amount of income taxes paid; that the government, in its role as a tax collector, has no shareholder interest in a corporation; that the income tax is not a franchise fee; and that the income tax is a compulsory contribution. Wheeler and Galliard also note that an income distribution such as dividends is generally voluntary whereas the income tax is not so, hence is not a distribution. Additionally, although the income tax results from a combination of activities that are profit-directed, they argue that the income tax is neither an expense nor a loss because it does not generate revenue. By a process of elimination, they conclude that "because the income tax fails to qualify as a profit distribution, an expense, or a loss, it is an anomalous item."

Interestingly, as a result of the vastly higher tax rates of the 1940's, Paton [1943, p. 13] concluded that the income tax is an anomalous item rather than an income distribution:

The terms 'net income' and 'net profit,' by long usage, imply the amount of earnings available for owners or investors, and are not at all appropriate to describe figures which may be eight or ten times the size of actual net corporate income or profits. As long as income and profits taxes were of relatively small amount the reporting of such taxes as a prior participation in the net income produced by the corporation was not particularly objectionable; under present conditions such reporting may be definitely misleading. To report 'net profit before income and profits taxes' of \$50,000,000, for example, when such taxes amount to say \$40, 000,000, and actual net corporate income is only \$10,000,000, borders on the fantastic. . . .

McLaren [1947, p., 163] notes that federal income taxes were not treated as an allowable cost under government war contracts during the 1940s. Federal income and excess profits taxes are still not allowable costs under Federal Acquisition Regulation (FAR) 31.205-41(b) (1). The fact that federal income taxes are not allowable costs might suggest that income taxes are an income distribution or anomalous deduction from revenues to derive net income rather than an expense or loss. However, state income taxes are allowable costs under FAR 31.205-41(a) (1).<sup>21</sup>

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<sup>21</sup> The AICPA's Audit & Accounting Guide for federal government contractors [2007] notes that federal income taxes are not allowable (para. 2.24), but that state income taxes are allowable costs for government contracts [para. 2.37].

Federal and state income taxes have the same conceptual nature although the former are not allowable whereas the latter are. Consequently, it does not make sense to maintain that federal income taxes are an income distribution or anomalous deduction rather than an expense, whereas state income taxes are an expense. A more likely reason why federal income taxes are not allowable costs is that if they were allowable, contractor revenues and government expenditures would increase. But the increase in government expenditures would have to be offset by increases in income taxes for everyone. Presumably, the government finds it easier and politically more palatable to disallow income taxes as an allowable cost of contractors rather than increase income taxes for everyone.

Paton [1943, p. 13] alludes to a similar rationale when he notes the similarity of sales allowances pursuant to government contract renegotiations and income taxes during the 1940s. Both are processes by which the government recovers excess payments for war products. If a particular renegotiation adjustment is not made, a large part of the contested amount is still recovered as income and excess-profits taxes. Renegotiated contract prices are properly treated as revenue deductions. According to Paton, so should income and excess-profits taxes:

... the artificiality of treating income and profits taxes as a preliminary distribution of corporate profits becomes evident. There simply are no profits in any appropriate sense – at least as far as corporate reporting to stockholders is concerned – until the processes by which the total governmental recovery is determined have been fully applied.

Thus, even Paton concludes that the corporate income tax is not an income distribution, but rather an anomalous deduction from revenues to compute corporate net income.

*Multiple Conceptualizations of Income Tax:* Paton [1922, pp. 269-70, lower and upper case as in the original] suggests the following presentation of interest, income taxes, and dividends consistent with his entity theory viewpoint.<sup>22</sup>

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<sup>22</sup>The terminology is updated slightly to conform to modern usage by substituting retained earnings for surplus and unreserved for unappropriated. Note that Paton favors combined income and retained earnings statements although they are usually separate in practice.

OPERATING NET REVENUE	\$xxxx	
Interest Earned	<u>xxx</u>	\$xxxx
Fire Loss		<u>xxx</u>
NET REVENUE TO ALL EQUITIES, Before		
Deducting Taxes		\$xxxx
Interest on Mortgage Bonds	\$ xxx	
Interest on Debentures	xxx	
Interest on Notes	<u>xxx</u>	<u>xxx</u>
[Unlabelled Subtotal]		\$xxxx
Federal Income and Profits Taxes		xxx
[Unlabelled Subtotal]		\$xxxx
Preferred Dividends		<u>xxx</u>
NET BALANCE FOR COMMON STOCK		\$xxxx
Common Dividends		<u>xxx</u>
Undivided Profits		\$xxxx
Retained Earnings, 1 January 20x3		xxx
Reserve for Contingencies		<u>xxx</u>
TOTAL UNRESERVED RETAINED EARNINGS,		
31 December 20x3		<u>\$xxxx</u>

Although this presentation omits a figure labeled net income, Paton's Net Revenue to All Equities, Before Deducting [Interest and] Taxes is unequivocally his entity theory net income.<sup>23</sup>

Following Paton, some accountants [e.g., Blough, 1946, p. 89; Mason and Davidson, 1953, p. 168; AAA, 1957, p. 540] argue that the conceptual nature of the corporate income tax depends on the viewpoint of financial statement users. They argue that there is no one measure of periodic net income, but rather an array of measures for different purposes. To the stockholder, income taxes and interest on debt are properly viewed as expenses to be deducted in computing net income available for distribution as dividends without impairing capital, consistent with the proprietary theory. From an enterprise viewpoint, however, Mason and Davidson [1953, p. 168] argue that net income before income taxes and interest on debt is a more meaningful measure of the results of operations, consistent with the entity theory. Net income, so computed, can be more effectively compared from one period to another and from one enterprise to another because it is unaffected by variations in income tax policies and debt versus equity financial policies of otherwise comparable enterprises.

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<sup>23</sup> A consistent application of the entity theory would involve reporting corporate income taxes, along with other distributions, directly in the retained earnings statement, rather than the income statement [e.g., Huber, 1964, pp. 27-28]. However, starting with Paton, many entity theory advocates favor reporting income taxes in a combined income and retained earnings statement. Moreover, reporting corporate income taxes and interest charges directly in retained earnings never conformed to U.S. GAAP.

Other accountants dispute this apparent resolution as no resolution at all. For example, in criticizing the dual presentation of net income before and after income taxes, McLaren [1947, p. 164] notes that “the owners of a business are not concerned with any artificial sub-total, regardless of how it is labeled. What they want to know is how much the corporation has earned after all charges.” Kelley [1958, p. 214] also criticizes the dual presentation as confusing. Zeff [1961, p. 160, fn. 1], in criticizing a dual presentation of net income, asks rhetorically, “which of the two balances is meant to be *the* net income? A reader of such an income statement cannot tell.”

Sprouse [1957, p. 375] also questions the notion that “net income before income taxes” is a more comparable metric of enterprise profitability than “net income after income taxes.” He notes that from a managerial viewpoint, “tax planning represents an extremely significant factor in modern decision making on the part of corporation managers. This would seem to indicate that management’s primary concern is the amount of profits after taxes rather than...before taxes.” According to Sprouse, interperiod and interfirm profitability comparisons are facilitated by excluding non-operating revenues and expenses from net income, not income taxes.

Zeff [1961, pp. 213-215] offers a resolution of this issue. He favors limiting the use of the terms “income” and “net income” in the income statement to the return to the residual equity common stockholders, not to other capital suppliers:

Common stockholders participate in the residuum. Because the magnitude of their return is the most sensitive of all to the vicissitudes of enterprise success, their natural mindfulness of swings in business activity warrants their return – if any return is to be so classified – to be singled out as ‘income’ (preferably called ‘net income’).

Instead of using the terms “income” or “net income” to the other capital suppliers on the income statement, Zeff suggests that the income statement should report “return to all capital suppliers” and “return to preferred and common stockholders” for these subtotals. Although Zeff’s suggestion might resolve the issue, practice continues to use the term “net income” to refer to “return to preferred and common stockholders,” not just “return to residual equity” (i.e., common stockholders).

*Conclusions on the Conceptual Nature of Corporate Income Taxes:*  
In accordance with the proprietary theory, corporate income

taxes are typically viewed as an expense. In accordance with the entity theory, they are typically viewed as an income distribution. However, as Wheeler and Gallart [1972, p. 55] conclude, neither the proprietary nor the entity theory determines unambiguously the conceptual nature of corporate income taxes because each theory leads to either ambiguous or contradictory conclusions or is interpreted differently by different writers. Moreover, neither theory is followed consistently in practice. Rather, as Husband [1938, pp. 252-253] noted, practice seems to mix them, often to the point of vacillation.

Nevertheless, important lessons result from understanding the controversies over the different theories of the accounting entity and the conceptual nature of the corporation income tax. Perhaps the most important lesson is to understand how these controversies evolved in order to avoid needless entanglements over other comparable theory controversies. However, the weight of logic leads inevitably to the conclusion that the corporate income tax is in fact an expense, not an income distribution, loss, or anomalous item. This conclusion relies in part on the definitions of the elements in the FASB conceptual framework and in part on the following refinement of the proprietary and entity theories along lines suggested by Zeff.

It will be recalled that Zeff [1961, pp. 96-97] suggests that neither the proprietary nor entity theory is completely satisfactory because neither theory fully distinguishes between the subject being accounted for and the principal party for whose benefit the financial statements are prepared. Once the proprietary theory is applied correctly to the corporation, the corporation becomes the subject being accounted for, not the stockholders, and the stockholders remain the principal party for whose benefit the financial statements are prepared. Similarly, once the entity theory is applied correctly to the corporation, the corporation remains the subject being accounted for, and the stockholders become the principal party for whose benefit the financial statements are prepared, not the corporation or its managers.<sup>24</sup>

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<sup>24</sup>Zeff [1961, p. 107] comes to a similar conclusion but he expresses it differently. His proprietor-beneficiary version of the entity theory is essentially the proprietary theory where the corporation becomes the subject being accounted for and the common stockholders remain the principal party for whose benefit the financial statements are prepared. His equities-beneficiary version of the entity theory is essentially the entity theory where the corporation remains the subject being accounted for and the common stockholders become the principal party for whose benefit the financial statements are prepared. For Zeff [1961, pp. 211-215], however, it is the common stockholders, not all the stockholders, who are

As a result, when applied correctly to the corporation, the proprietary and entity theories coalesce into the same theory of the accounting entity. The corporation is the subject being accounted for and the stockholders are the principal party for whose benefit the financial statements are prepared. Within the context of this coalesced proprietary-entity theory, the corporate income tax is not an income distribution; rather, it should be deducted from revenues and gains to derive net income attributable to the stockholders.<sup>25</sup>

As to whether the corporate income tax deduction is an expense, a loss, or an anomalous item, the issue is best addressed within the context of some generally accepted definition of these items, such as the FASB's conceptual framework.

Within that context, corporate income taxes clearly fit the definition of an expense as an outflow of net assets resulting from an entity's central or peripheral operations. This conclusion presupposes several aspects of the FASB conceptual framework: (1) the financial statements should articulate with one another; (2) a major objective of financial accounting is measuring periodic net income; (3) periodic net income comprises the sum of the revenues and gains less the sum of the expenses and losses; and (4) the 1985 FASB definitions of assets, liabilities, comprehensive income, revenues, expenses, gains, and losses are not only self-evident but also fully consistent with the coalesced proprietary-entity theory of the accounting entity.<sup>26</sup>

Consistent with the FASB conceptual framework, the statement of financial position reports assets, liabilities, and stockholders' equity as of a moment in time, while the income statement reports revenues, expenses, gains, and losses for a period of time. The statement of financial position reflects the fundamental accounting equation,  $\text{Assets} - \text{Liabilities} = \text{Owners'}$

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the principal party for whose benefit the financial statements are prepared. As such, his fused proprietary-entity theory evolves into the residual equity theory. Kam [1990, pp. 318-320] also suggests that elements of the proprietary and entity theories might be fused.

<sup>25</sup>This paper purposely slights over whether the principal party for whom financial statements are prepared should be all the stockholders or just the common stockholders. Either way, the corporate income tax should be deducted from revenues and gains to derive net income attributable to all the stockholders under the fused proprietary-entity theory or just the common stockholders under the residual equity theory.

<sup>26</sup>Presently, the FASB and IASB are jointly developing a common conceptual framework to replace their separate conceptual frameworks. However, significant differences between the jointly developed common conceptual framework and the extant FASB conceptual framework are not anticipated.



Equity under the proprietary theory, or Assets = Equities, where equities are either liabilities or owners' equity under the entity theory. Because revenues, expenses, gains, and losses are defined in terms of changes in assets and liabilities, the financial statements articulate with one another.

Under the FASB conceptual framework, comprehensive income has four basic categories. There are no anomalous deductions from revenues and gains to derive comprehensive income or any intermediate component of comprehensive income. Conceivably, another two categories could be added to derive comprehensive income, namely, anomalous additions and anomalous deductions. However, adding two such anomalous "what-you-may-call-its" categories, to use Sprouse's [1966] terminology in a different context, would make the conceptualization of periodic net income more complicated than it already is, involving six categories rather than four. Indeed, adding two anomalous categories might make comprehensive income itself anomalous.

The FASB conceptual framework does not encompass anomalous items. Although the deduction or addition of income taxes is often captioned a "provision" and reported apart from the other expenses, it should be understood that said provision is in the nature of an expense or, if a refund, an expense reduction, not an anomalous item. Characterizing the income tax deduction as a provision does not change its conceptual nature from expense to anomalous item anymore than characterizing bad debts or warranty costs as provisions changes their conceptual nature from an expense to an anomalous item.

Manifestly, the FASB's definition of expense as an outflow or the using up of net assets resulting from an entity's central operations subsumes the definition of expense as "a cost of services consumed to obtain revenue" or, more simply, as "a cost incurred to generate revenue."<sup>27</sup> Thus, the above definition of expense reflects a coalesced proprietary-entity theory. Moreover, the FASB definition of expense explicitly includes income taxes. SFAS No. 109 [1992, para. 16] refers to deferred tax expense or benefit and total tax expense or benefit, not to deferred tax

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<sup>27</sup> Chatfield [1974, p. 225] notes how the definition of expense differs under the proprietary and entity theories. Whereas expense is simply a decrease in stockholder's equity or net assets under the proprietary theory, it is a cost of services consumed to obtain revenue under the entity theory. The FASB definition subsumes the definitions under both the proprietary and entity theories.



provision and total tax provision.<sup>28</sup> Similarly, in the October 16, 2008 *Preliminary Views* [FASB, 2008a, p. 71] document on financial statement presentation, the illustrative statement of comprehensive income includes a deduction captioned income tax expense, not income tax provision or just income taxes.

The conceptual distinction between revenue versus gain and expense versus loss relates to whether the item results from an entity's ongoing major or peripheral operations, not its gross or net presentation [FASB, 1985, para. 84]. Revenue and expense are conventionally reported gross, whereas gain and loss are conventionally reported net. For example, sales revenue is reported gross, excluding the related cost of goods sold. Cost of goods sold is also reported gross, excluding the related sales revenue. On the other hand, gain or loss on the sale of plant assets is reported net of the depreciated cost of the plant assets sold. Conceivably, the sale of plant assets could be reported gross, i.e., both the selling price and the cost of the assets sold could be reported separately as non-operating revenue and non-operating expense respectively. Income taxes are incurred as a result of generating revenue, a major or peripheral activity of a business enterprise. Accordingly income taxes are an expense because they are a cost of generating that revenue, whether from operating revenue reported gross or from non-operating revenue reported net. Income taxes remain in nature an expense, whether reported gross as income tax expense when resulting from major or peripheral activities, or reported net when resulting from discontinued operations, extraordinary items, other comprehensive income, or prior period adjustments subject to intraperiod income tax allocation.

Besides being defined explicitly by the FASB as an expense, corporate income tax is an expense because it is an inevitable outflow or using up of net assets from major or peripheral activities. Expressed more succinctly, the income tax is an expense because it is a cost of generating operating or non-operating revenue. Although the amount of income tax is not proportional to any benefits received from the government, neither is the amount of certain other costs proportional to the benefits received from payees. Yet, these other costs are unambiguously ex-

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<sup>28</sup> SFAS No. 109 [1992, para. 16] defines deferred tax expense or benefit as "the change during the year in an enterprise's deferred tax liabilities and assets," excluding changes in deferred tax liabilities and assets due to business acquisition or dispositions during the year. It defines total income tax expense or benefit for the year as "the sum of deferred tax expense or benefit and income taxes currently payable or refundable."

penses, not distributions of income, losses, or anomalous items. Examples include fixed franchise fees, property taxes, and trade association membership fees.

Additionally, although not proportional in amount to revenues, under interperiod income tax allocation, reported income tax expense is roughly proportional to pretax book income, ignoring permanent differences and graduated rates, etc. Accordingly, application of interperiod income tax allocation bolsters the argument that corporate income tax is an expense because its recognition is roughly proportional to the benefits received in the form of pretax book income.<sup>29</sup> Consistent with this observation, perhaps the method of accounting for the income tax determines its conceptual nature rather than vice versa, illogical as this conclusion might appear.

These FASB definitions might conceivably be wrong or at least subject to revision in a new jointly developed FASB-IASB common conceptual framework. However, substantial changes in these definitions are not anticipated in any new common conceptual framework. More important, as accounting is the language of business, some authoritative body should develop definitions of the elements of the financial statements so that accounting communicates effectively. Presently, that job rests with the FASB. Moreover, these definitions are essentially correct and fully consistent with the coalesced proprietary-entity theory of the accounting entity.

Equally important, because the objective of financial reporting is to provide information that is useful in credit and investment decisions [SFAC-1, 1978, paras. 30-32], financial statements should provide information needed for credit and investment decision models. Many of these decision models are specified in the finance literature. These models invariably treat income taxes as an expense, not as an income distribution, loss, or anomalous deduction. For example, Palepu et al. [2004, pp.

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<sup>29</sup>Consistent with interperiod income tax allocation, when net income before income taxes is positive, income tax expense is usually positive, absent permanent differences, tax credits, and other items. When net income before income taxes is negative, income tax expense is usually negative and is often described as income tax benefit. Importantly, income tax benefit represents a reduction of positive income tax expense, not a revenue or gain. The same is true of negative bad debt expense due to favorable adjustments to offset overestimates of bad debt expense of prior periods, and negative professional service expense due to favorable adjustments resulting from the overestimates of professional service expense of prior periods or refunded amounts due to dissatisfaction with the quality of professional services received.

5-12], Brigham and Ehrhardt [2005, pp. 385-395], Scholes et al. [2005, pp. 3, 394], and Penman [2007, pp. 312-315] call for including income taxes, along with other expenses, in analyzing cash flows, rates of return, and/or net present values in credit and investment decisions. The usefulness of financial statements should be enhanced by treating income taxes as expense, consistent with the way they are treated in credit and investment decision models.

There is also some empirical evidence that viewing the corporate tax as an income distribution rather than an expense enjoys little acceptance among practicing accountants. In a survey of 500 American CPAs, Ricchiute [1977, p. 134] reports that 191 of 234 respondents view the tax as an expense whereas only 43 view it as an income distribution. On an overall basis, Ricchiute [1979, pp. 70, 72] reports that most of the respondents subscribe to the proprietary theory, not the entity theory. Additionally, he found no differences among surveyed CPAs in public accounting contrasted to those in industry, government, or education.<sup>30</sup>

According to SFAC No. 2 [1980, paras. 40-41], understandability is an essential qualitative characteristic of accounting information. Presumably, using the prevailing view of income taxes as an expense enhances user understanding of financial statements by minimizing dissonance between preparers and users.

In conclusion, the corporate income tax is best viewed as an expense rather than as a loss, an income distribution, or an anomalous item. But to paraphrase van Hoepen [1981, p. 11], it is an expense with some remarkable characteristics.

#### RELEVANCE OF THE CONCEPTUAL NATURE OF INCOME TAX TO INCOME STATEMENT AND CASH FLOW STATEMENT REPORTING

The controversy over the conceptual nature of the corporate

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<sup>30</sup>Kam [1990, p. 318] disagrees with Ricchiute's findings. He argues that the attitudes of stockholders, managers, and the public confirm the entity theory. Kam appears to base his views in part on the findings of an Australian study by Moores and Steadman [1986, pp. 23-24, 30], which found that "most practicing Australian accountants currently subscribe to what has been called a 'middle position,' that is, they exhibit a propensity to oscillate between the proprietary and entity viewpoints [theories]." Somewhat inconsistently, however, Moores and Steadman found that "corporate accountants were slightly more disposed to middle positions and overall appeared more inclined towards proprietary viewpoints. But when the total responses are considered, this group clustered on middle ground while public accountants were skewed slightly to proprietary viewpoints."

income tax continues to impact its reporting on the income statement and cash flow statement.

*Income Statement Reporting:* One secondary effect of this controversy is the location of income tax expense on the income statement. At one time, some companies reported the income tax among other expenses, whereas other companies reported it separately as a separate deduction from pretax income to derive post-tax income [AICPA, 1966, pp. 203-204; Hasselback, 1976, p. 275]. Presently, however, almost all companies [e.g., the 2007 annual reports of Ford, p. 55; General Motors, p. 82; Procter & Gamble, p. 49] report income taxes as a separate deduction from pretax income from continuing operations to derive post-tax income from continuing operations.

This presentation may well reflect the carryover to the corporate annual report of the SEC's requirement to report income taxes separately in income statements included in annual Form 10-K reports [see Regulation S-X, 1966, section 4.08(h)]. McLaren [1947, pp. 156, 163] notes that reporting income before income taxes pursuant to SEC requirements suggests that the SEC views the income tax as an income distribution:

It is perfectly natural for a Federal agency to view income taxes ... as a profit-sharing arrangement in which the government is a participant ... in keeping with ... basic New Deal theories concerning the relationship ... between government and business.

However, the separate presentation of the income tax does not make it a distribution or an anomalous item; it is still an expense. Deducting income tax separately from expenses merely facilitates user analysis of operations on a pre- and post-tax basis. In a multiple-step income statement, cost of goods sold is also deducted separately to facilitate analysis of gross margin; it is still an expense.

Another secondary effect of the controversy as to the conceptual nature of the corporate income tax is the lingering controversy over interperiod income tax allocation. Some theorists [e.g., May, 1945, p. 125; Moonitz, 1957, p. 175; Sprouse, 1957, p. 377; Davidson, 1958, p. 174; Dewhirst, 1972, p. 42; Van Hoepen, 1981, p. 12; Beechy, 1983, p. 17] suggest that interperiod income tax allocation would not be appropriate if the corporate income tax was really an income distribution rather than an expense. Other theorists [e.g., Hendriksen, 1958, p. 216; Jaedicke and Nelson, 1960, p. 278, fn. 4; Keller, 1961, pp. 29-30] argue that in-

terperiod allocation should be required even if income taxes are an income distribution in order to determine income available for distribution as dividends to stockholders without impairing capital.

*Cash Flow Statement Reporting:* Questions concerning the conceptual nature of the corporate income tax may also impact its classification in the cash flow statement. Current U.S. GAAP classifies all income taxes as an operating flow [SFAS No. 95, 1987, paras. 91-92], except for the tax benefits from the “wind-fall” stock option deduction, which are classified as a financing flow [SFAS No. 123 (Revised), 2004, para. 68].

Some theorists [e.g., Nurnberg, 1993, pp. 67-69, 2003, pp. 48-54; Turpen and Slaubaugh, 1994, pp. 35-36; Waxman, 2003, pp.18-19] call for intraperiod income tax allocation within the cash flow statement for the income tax effects of all investing and financing activities in order to sharpen the distinction between operating, investing, and financing flows.

Presently, the FASB [2008a, paras. 2.21, 2.74, 2.75] proposes to report income taxes in a separate category apart from business activities on the cash flow statement. It reasons that allocating income taxes among operating, investing, and financing activities in those statements “would require complex and arbitrary allocations that are unlikely to provide useful information.” Such a presentation would implicitly treat the income tax cash flows differently from cash flows for expenses, losses, or income distributions.

#### RELEVANCE OF THE CONTROVERSY OVER THE CONCEPTUAL NATURE OF CORPORATE INCOME TAX TO THE DEVELOPMENT OF ACCOUNTING THEORY

Unless current accounting theory is understood within a historical context, no amount of correctness, originality, rigor, or elegance will prevent those studying it from sensing a lack of direction and meaning [cf., Schumpeter, 1954, pp. 4-5]. By studying the history of accounting thought, we learn about both the fruitfulness and the fruitlessness of theory controversies, about how we advance and how we regress, and about why we are as far as we actually are but also why we are not further. Hopefully, a better understanding of the controversy over the conceptual nature of the corporate income tax will preclude fruitless controversies over other issues currently troubling accountants and accounting standard setters.

For example, a current FASB project is the conceptual distinction between liabilities and equities [FASB, 2007a]. In some ways, this controversy is similar to the one over the conceptual nature of the corporate income tax, which in turn relates to the conceptual distinctions between expenses and distributions. Despite an extensive literature extending over almost a century, the controversy over the conceptual nature of the corporate income tax remains unresolved, largely because the conceptual distinctions between expenses and income distributions are not always unambiguous. Perhaps there is little reason to expect the FASB to be more successful in distinguishing between liabilities and equities, judging by its recent somewhat unsuccessful efforts at ascertaining the conceptual nature of mandatorily redeemable preferred stock.

Another example is the current FASB project on the reporting entity, including its associated theories. Perhaps there is little reason to expect the FASB to be more successful in developing a more workable concept of the reporting entity, judging by its somewhat unsuccessful and incomplete efforts over more than 23 years to develop a more workable concept of the consolidated entity.

Still another example is the current efforts of the FASB and IASB to make accounting more consistent by developing and refining a common conceptual framework. The FASB commenced initial efforts on developing a conceptual framework in 1972. Although some of its members suggest that its extant conceptual framework is helpful in its own deliberations on new accounting standards, to date the framework is far from complete, far from internally consistent, and far from conceptual throughout, as is the joint FASB-IASB proposed common conceptual framework. Perhaps the world of accounting and business would be better off by following Boulding's [1962, p. 54] suggestion to educate report users and the public as to what accountants do rather than developing new and potentially more complex and more obtuse conceptual frameworks.

## SUMMARY AND CONCLUSION

This paper examines a long-standing controversy about the conceptual nature of the corporate income tax. This controversy remains unresolved, despite several authoritative pronouncements stating or assuming that the corporate income tax is an expense, and despite an extensive discussion in the literature over more than one hundred years. This controversy in part reflects different theories of the accounting entity.

Within the context of a coalesced proprietary-entity theory of the accounting entity, the examination of this controversy leads to the unsurprising conclusion that the corporate income tax is an expense, but an expense with some remarkable characteristics. However, the benefits from examining this controversy extend beyond the conclusion that the income tax is an expense. The examination provides a historical context in which other theory controversies can be examined to greater advantage. It shows how the development of accounting thought has progressed and regressed. It teaches us much about the ways of the human mind. Perhaps a better understanding of this controversy may preclude fruitless controversies over other accounting theory issues currently troubling accountants and accounting standard setters.

Additionally, the controversy as to the conceptual nature of the corporate income tax impacts its reporting on the income statement and cash flow statement. One manifestation of this controversy is the lingering controversy over interperiod tax allocation. Another manifestation of this controversy is how to report income taxes on the income and cash flow statements.

No doubt some readers will disagree with the conclusion that the corporate income tax is an expense. To some readers, the tax defies conceptualization. Perhaps the same is true of other conceptual issues currently troubling accounting standard setters. For decades, standard setters have called for the development of a conceptual framework to help facilitate the development of financial accounting standards. But, as indicated by the controversy over the corporate income tax, some things are not easily conceptualized in the real world.

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*Accounting Historians Journal*  
Vol. 36, No. 2  
December 2009  
pp. 75-92

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## **OUTLIERS IN THE PROFESSIONAL PROJECT OF VICTORIAN PUBLIC ACCOUNTANCY: DAVID SOUTER ROBERTSON, CHARTERED ACCOUNTANT**

*Abstract:* The first and most specific purpose of this paper is to contrast the private and public lives of a founder of modern public accountancy to illustrate the ambiguity of an outlier in the history of a professional project. A second and more general purpose is to use the founder's personal history to identify archival issues in biographical accounting research. A historical outlier such as Scottish Chartered Accountant David Souter Robertson (DSR) demonstrates how research of the professional project of Victorian public accountants is enhanced by the inclusion of private as well as public aspects of their lives. Set in the context of the early British public accountancy associations and unsuccessful outliers among their members, the study of DSR focuses on his insolvency at a time when the newly formed associations were facing the issue of setting ethical standards to cope with unsuccessful outliers in their professional projects. The case of DSR illustrates specific problems facing accounting biographers when accessing public archives of the Victorian period.

### **INTRODUCTION**

The first and most specific purpose of this paper is to use the history of a founder of modern public accountancy in Victorian Britain to illustrate the ambiguous nature of an outlier in a professional project. The concept of an outlier in modern social history is specifically recognized by Gladwell [2008] and concerns individuals whose lives, careers, and achievements are significantly different from their contemporaries to warrant separate identification and analysis. Gladwell's particular historical interest is successful outliers and the factors and reasons for their success. He argues that explanations of successful

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**Acknowledgments:** The author is grateful for helpful comments from two anonymous referees and Christopher Napier, the Administering Editor.

outliers depend on discovering their social, economic, and cultural origins [Gladwell, 2008, p.19]. Accounting historians typically focus on successful outliers in biographical research [e.g., Zeff, 1999] and, less frequently, on unsuccessful outliers [e.g., Walker, 1996b]. The current study illustrates the potential ambiguity of an outlier in the early history of modern public accountancy. Apparent success prior to death was negated by unfavorable events discovered after death. The events took place during a period in which the newly formed public accountancy associations began to face up to the issue of establishing professional standards to discipline unsuccessful outliers [e.g., Walker, 1996b; Chandler et al., 2008]. The study also uses the personal history of the founder to illustrate issues facing biographers in accounting history when accessing data in public archives and secondary sources relating to the Victorian period.

The public accountancy founder was David Souter Robertson (DSR) (1802-1888), an Edinburgh lawyer, accountant, and charter member in 1854 of the Society of Accountants in Edinburgh (SAE) [Lee, 2006a, pp. 333-335]. Existing biographies of DSR suggest a relatively successful practitioner of his time with strong links to the landed gentry and the legal profession [Brown, 1905, p. 379; Stewart, 1977, p. 155; Lee, 2006a, pp. 333-335]. However, court-related events following DSR's death in 1888 evidence a cumulative financial state of affairs that, had it been discovered during his professional career, would have raised serious questions about his professional competence and right to membership of the SAE. As a founding member of the SAE until his death, DSR effectively was a hidden unsuccessful outlier in its membership. It was fortunate for the reputation of the SAE that his financial affairs were not publicly exposed before or after his death.

The paper describes newly discovered archival data about the financial affairs of DSR and his sons as landed gentry that bring into question his professional competence as a 19th century lawyer and public accountant. As such, the study is an accounting example of a wider genre in social history in which the significance and contribution of individuals is enhanced by evidence of their private as well as public lives [e.g., Twinam, 1999; Brown, 2006]. The private life of DSR is presented in this study in the context of other unsuccessful outliers in the early history of British public accountancy. The contextual analysis suggests the pursuit of professionalism by the founders and early members of public accountancy associations was not a trouble-free episode in their history as they attempted to



establish appropriate professional and disciplinary standards for their members. The remainder of the paper reviews unsuccessful outliers in the early history of British public accountancy; previous biographies of DSR; his origins, career, retirement, and family; his posthumous bankruptcy; and issues that accounting biographers face when accessing data from public archives and secondary sources relating to the late Victorian period.

### UNSUCCESSFUL OUTLIERS IN EARLY PUBLIC ACCOUNTANCY

The history of DSR is of a Victorian professional gentleman whose financial affairs at death were inconsistent with the professional ideal expected in the British class-structured society of the late 19th century [Millerson, 1964, pp. 6-9; Perkin, 1989, pp. 116-123]. Historians report on how the early Victorian public accountants organized to pursue and maintain this professional ideal [e.g., Walker, 1995]. In particular, the founders and early members of professional associations such as the SAE were managers of projects in which the primary objective was to portray professional competence and standards of behavior in order to achieve legitimacy for their market share of services intended to protect the public interest (e.g., court-related services such as bankruptcy trusteeships). Previous researchers have focused on negative aspects of this quest for professionalism, and these sources [e.g., Walker, 1996b, 2003; Lee, 2006a, b, 2009; Chandler et al., 2008] are briefly reviewed below in order to provide a contextual background with which to examine the posthumous events associated with DSR. The analyses are provided on a geographical basis, first in Scotland and then in England and Wales.

*Scottish Outliers:* The following are examples of outliers found in previous research of the early Scottish professional project in public accountancy. Walker [2003] describes events associated with several SAE founders who, prior to and at the time of the SAE's founding, were agents or factors of the estates of major landowners in Scotland and directly responsible for the dispossession and relocation of impoverished tenant farmers and laborers in what is known to historians as the Highland Clearances. At the time, they were all highly regarded in their professional community and can therefore be characterized as successful outliers in that community. Indeed, one such agent became the first SAE president and others held SAE offices. However, contemporary historians' understanding of the economic, social, and cultural deprivations and injustices of the

Highland Clearances mean that the historical contribution of these supposedly successful outliers need to be re-evaluated in light of available historical evidence.

More obviously unsuccessful outliers were two SAE founders who, in 1873 and 1883 respectively, fled to America pending charges of fraud associated with missing client funds, thereby triggering the introduction of formal disciplinary processes for SAE members [Walker, 1996b; see also Lee, 2006a, pp. 102-104, 299-302]. Another unsuccessful outlier described by Lee [2006b, pp. 30-31] is an early member of the Institute of Accountants and Actuaries in Glasgow (IAAG) who also fled to America in 1888 accused of fraudulent misconduct with respect to bankruptcy trusteeships. A shocking murder at his home in which his father was implicated and a later court case that was the subject of debate in the British Parliament led to the suicide of an IAAG founder in 1866, and illustrates the impact that negative private matters had on the public life of a professional man in Victorian Scotland [Lee, 2006a, pp. 136-138]. In similar vein, Shackleton and Milner [1996] recount the professional problems of a leading IAAG officer in 1878 following the public exposure of stock-market speculations and losses by his brother and partner. The failure of the City of Glasgow Bank in 1878 caused the removal by the Court of Session of bankruptcy trusteeships held by a leading IAAG founder who was financially damaged by the bank's failure [Lee, 2006a, pp. 237-240]. Finally, although Carnegie et al. [2000; see also Lee, 2006a, pp. 290-291] describe the unremarkable and apparently untroubled professional career of a SAE founder who immigrated to Australia in 1856, a notification in the *Edinburgh Gazette* [1856, Vol. 6,586, p. 330; Vol. 6,602, p. 504] about his resignation from a bankruptcy trusteeship in which he had postponed the payment of a dividend to creditors despite completing his administration, implies a possible problem in his practice.

*English and Welsh Outliers:* Chandler et al. [2008] outline several outliers in the early years of the Institute of Chartered Accountants in England and Wales (ICAEW) and its constituent associations such as the Institute of Accountants in London (IAL) and the Society of Accountants in England (SAIE). They were either involved in fraudulent practice activity or bankrupt. For example, a London bankruptcy practitioner and prominent member of the IAL and the SAIE fled to America in 1876 following criminal charges of fraud in his practice [Chandler et al., 2008, pp. 830-831; Lee, 2009, entry 305]. Despite this

background, the accountant had a successful practice in New York. In 1886, he was a principal founder of the American Association of Public Accountants (AAPA) and, in 1896, a leading instigator of the first certified public accountant (CPA) law in New York. A founder member of the ICAEW fled to America in 1883 with considerable practice debts, as did two brothers in partnership in London [Chandler et al., 2008, pp. 837-840; see also Lee, 2009, entries 272, 273]. Chandler et al. [2008, pp. 831-842] also identify ICAEW members found guilty by British courts for unprofessional behavior as well as ICAEW members declared bankrupt. Lee [2009, entry 20] describes a prominent bankruptcy specialist and ICAEW member who was declared bankrupt immediately before immigrating to America in 1885 and who had a successful career there as a founder of the AAPA and the New York CPA law.

*Overview:* The previous sections illustrate several unsuccessful outliers in the early history of British professional associations of public accountancy. This was a period in which these associations began to establish their professional legitimacy. Part of that process involved the establishment of standards and disciplinary processes to deal with the unprofessional behavior of a small number of unsuccessful outliers in their memberships. The above descriptions from prior research reveal fraudulent activity and flight to America or court actions, bankruptcies involving flight, and, more generally, events likely to raise questions about the professionalism of the public accountants involved. According to Chandler et al. [2008] and Lee [2009], some of these cases appear to have led to minuted inquiries or disciplining by the professional associations concerned. Other embarrassing events, however, were either ignored or went unnoticed. In addition, when action was taken by the association to remove a member, the archived record typically had no discussion of the facts. In several cases, lack of action by professional associations in Britain and America resulted in apparently successful American careers despite the earlier British experience. Thus, an unsuccessful outlier in Britain could become a successful outlier in America in the late 19th and early 20th century. It is in this ambiguous context that the case of DSR is examined further.

## PREVIOUS BIOGRAPHIES

DSR was born in 1802 near the weaving and fishing town of Arbroath in Forfarshire. He was educated at Arbroath before

moving to Edinburgh where he trained as a lawyer and attended law classes at the University of Edinburgh from 1823. He began to practice as a writer and public accountant in Edinburgh from about 1825.<sup>1</sup> Although DSR was relatively uninvolved in the SAE's founding, his family background and professional reputation were sufficient for him to be elected to the SAE's first nominating committee in 1854, council from 1854 to 1858, and initial by-laws and bankruptcy committees in 1854. These elections signal DSR's prominent position as a senior member of Edinburgh's accountancy community in the middle of the 19th century. His early practice included bankruptcy trustee-ships, but he later specialized in landed-estate management and non-executive company directorships before retiring from full-time public practice in 1860 to become a landed gentleman. He continued to practice on a part-time basis for several years thereafter. DSR began to acquire landed property in 1849 and continued to do so for the next ten years. He died on his principal estate in Lanarkshire in 1888.

Existing biographies of DSR by Brown [1905, p. 379], Stewart [1977, p. 155], and Lee [2006a, pp. 333-335] portray him as a SAE founder with a social status commensurate with his connections to landownership and law practice. These biographies imply professional competence and economic prosperity. However, such an impression is illusory because of events following his death. At this time, DSR's estate was found to be insolvent owing to a combination of bank debt and family trust settlements accumulated over several decades. The remainder of this paper uses archival data to outline briefly DSR's social origins, family relations, and professional career before analyzing in greater depth his financial state of affairs at death. For many years prior to his death, DSR and at least two of his sons lived well beyond their financial means as landed gentry thanks to a combination of liberal lending by Scotland's leading banks and arguably over-generous trust settlements by DSR to his family.

### FAMILY ORIGINS AND NAMES

Improved on-line access to records of births, marriages, and deaths, and a recently discovered family genealogy containing a reference to DSR [Johnston, 1861], led to the identification of his bankruptcy files deposited with the National Archives

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<sup>1</sup>Writers in 19th century Scotland were the least prestigious category of lawyer within a status hierarchy of practitioner [Walker, 1988, pp. 13-14].

of Scotland (NAS) as well as those of two of his sons. The three sets of files are referenced in the NAS as CS318/36/282, CS318/39/50, and CS318/41/52, and citations to them are made throughout the remainder of the paper.

According to Johnston [1861, Appendix K, pp. xix-xx], DSR came from a Johnstoun family in Dumfriesshire that, from 1460, adopted the name Souter in Perthshire to avoid religious persecution, before reverting back to Johnstoun when relocating to Forfarshire. The Scottish Parliament in 1663 permitted an ancestor of DSR to be renamed Souter Johnstoun. The latter name had reverted to Souter by 1801 when DSR's father Alexander Souter, a weaving manufacturer, married a daughter of an Arbroath merchant descended from the Robertson and Chaplin families that owned land near Arbroath. DSR was a nephew and practice partner (1832-1857) of Thomas Robertson Chaplin (1774-1857), a fellow SAE founder [Lee, 2006a, pp. 106-107]. On his retirement in 1860 and following the death of his first wife, DSR, as a deputy lieutenant of the Counties of Lanarkshire and Bute,<sup>2</sup> received royal permission to change his family name from Robertson Souter to Souter Robertson [*Edinburgh Gazette*, 1860, Vol. 7,035: p. 954]. Although his sons Stewart (1839-1898), David (1851-1883), Thomas (1854-?), and George (1857-?) were born Robertson Souter, only Stewart (SSR) took the name Souter Robertson. David (DRS) remained Robertson Souter, and Thomas (TRC) and George (GRC) reverted in 1869 to Robertson Chaplin when they received liferents on properties belonging to the Chaplin family.<sup>3</sup>

### CAREER, RETIREMENT, AND SONS

DSR was descended from families associated with weaving, merchanting, and minor landownership in Forfarshire. Unsurprisingly, he had several direct and indirect links to landowners and lawyers by the time of the SAE's formation. He was a practicing lawyer and public accountant in Edinburgh and, at least early in his career, held appointments from the Court of Session as a trustee in bankruptcy [e.g., *Edinburgh Gazette*, 1828, Vol. 3,674, p. 216, 1829, Vol. 3,725, p. 42]. However, DSR's principal

<sup>2</sup>Deputy lieutenant was a crown appointment to administer the financial and legal affairs of a Scottish county.

<sup>3</sup>19th century liferents were either gifted or purchased as investments in specified property. They entitled the investor to income from the property without owning it and provided landowners with capital without the need to sell property.

professional focus was as commissioner for the estates and mineral rights in Lanarkshire and Linlithgowshire of Scotland's premier earl, the Duke of Hamilton.<sup>4</sup> As commissioner, he resided for several months annually at the Duke of Hamilton's properties, and this experience presumably influenced his later acquisition of landed estates in Lanarkshire and Linlithgowshire. DSR's association with landowners and lawyers came not only through family and professional practice but also from marriage. His first wife in 1835 was Mary Jane Farquhar (1809-1845), daughter of an Aberdeenshire landowner and minister. His second wife from 1847 was Elizabeth Ross (1827-1859), daughter of an Aberdeenshire landowner who was a Writer to the Signet and deputy lieutenant of Lanarkshire.<sup>5</sup>

The middle of the 19th century was a time when the Reform Act of 1832, coupled with continuous agricultural prosperity in the Scottish lowlands, enabled members of the middle class with sufficient capital from industrial, commercial, and professional activities to become landowners [Devine, 1999, pp. 448-453]. DSR became a landed gentleman in 1849 and 1851 when he purchased a farming estate at Whitehill in Linlithgowshire and in 1855 when he acquired an estate at Lawhead of Tarbrax and Easterhouses in Lanarkshire. A farm at Woolfords was purchased in 1862. DSR built Lawhead House on the Tarbrax estate in 1859 and 1860. This was a hunting lodge to support the use of his estate for bird shooting.<sup>6</sup> At about the same time, DSR financed the construction of a parish church at the nearby village of Auchengray. In 1869, he inherited an estate at Murlingden in Forfarshire from his uncle George Robertson Chaplin of Colliston. In 1878, while retaining the mansion house at Murlingden for later sale to his son GRC, he sold the remainder of the estate to the Chaplin family for £12,000.

DSR had ten children born between 1839 and 1857. His four sons were educated at the Edinburgh Academy and later enlisted as officers in the local volunteer militia. SSR trained but did not qualify as a SAE member, and he and his brother DRS practiced as stockbrokers in Edinburgh. Stockbroking was an unsuccessful career for SSR. He was declared bankrupt in 1877

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<sup>4</sup>Commissioners were appointed by major landowners to oversee the management of their estates. The Duke of Hamilton was one of the largest landowners in Scotland in the middle of the 19th century [Devine, 1999, pp. 449-451].

<sup>5</sup>Writers to the Signet were the second most prestigious category of lawyer in Scotland [Walker, 1988, pp. 13-14].

<sup>6</sup>The development of land for hunting and shooting was a major activity in Scotland in the 19th century [Devine, 1999, p. 453].



and eventually repaid 40% of claims by his ordinary creditors [*Edinburgh Gazette*, 1877, Vol. 8,788, p. 342, 1878, Vol. 8,873: p. 160].<sup>7</sup> Following this bankruptcy, SSR moved to London where he was a clerk in the cash department of the North Western Railway Company. In 1890, following his father's death, he was declared bankrupt for a second time [*London Gazette*, 1899, Vol. 27,147, p. 8,642] and died in Cornwall in 1898 virtually penniless. Like his brother, DRS ceased to be a stockbroker in 1877. He immigrated to South Africa where, in 1879, he was decorated for bravery as a Royal Scots Militia captain during the Zulu War. DRS died in South Africa in 1883.

TRC was educated at the University of Edinburgh and appears to have been a photographer and artist. He received a substantial part of DSR's estate prior to the latter's death. According to the bankruptcy papers of DSR and TRC [CS318/36/282, CS318/41/52], the Whitehill estate was sold by DSR to TRC in 1881 for £3,000, with TRC borrowing £1,500 and waiving £1,500 of trust settlement rights to pay his father. The Lawhead of Tarbrax estate was conveyed as a gift of DSR to TRC in 1886 but burdened with secured debts to four private investors of £15,000. The Woolfords farm was also gifted by DSR to TRC in 1886 subject to a £2,500 lifetime annuity payable to an unmarried sister. In addition to these properties, TRC purchased a liferent in an estate in Stirlingshire for £300 and had an Edinburgh apartment. According to his bankruptcy papers, in 1888, GRC was serving as an officer in the Cape Colony Mounted Police on the Transvaal border with Rhodesia [CS318/39/50]. He purchased Murlingden House from DSR in 1878 for £3,000 (financed by a bank loan of the same amount) and also held liferents worth approximately £3,000 in Chaplin estates in Forfarshire and Lanarkshire.

By 1888, two of DSR's six daughters had died young, one was unmarried, and two were married to army officers. The remaining daughter was the deceased first wife of George Auldjo Jamieson (1827-1900), one of the youngest SAE founders in 1854 and an influential public accountant and local politician [Walker, 1996a; Lee, 2006a, pp. 179-185]. For each of his living married and unmarried children, and several grandchildren, DSR entered into substantial trust settlements to be activated on his death. Many of these trusts were administered by Jamieson. According to the sequestration papers for DSR, these settlements totalled £29,440 at his death [CS318/36/282].

<sup>7</sup>The papers for this sequestration have not survived.



## POST-1888 EVENTS

The above review of DSR suggests a prosperous and socially well-connected lawyer, public accountant, and landed gentleman who provided substantially for members of his family during his lifetime. This image of success, however, disappeared when he died in 1888 at Lawhead House. At this point, the children and grandchildren of DSR should have received the substantial benefits due to them under previous trust settlements. Instead, the dire state of his financial affairs emerged [data hereafter from CS318/36/282; see Appendix, columns 1 and 2]. A petition for bankruptcy sequestration was presented to the Court of Session in 1889 by the Commercial Bank of Scotland and Henry Moncreiff Horsburgh (1858-1892), an Edinburgh Chartered Accountant (SAE, 1880), was appointed trustee.

By 1890, claims accepted by Horsburgh totalled £46,322 – £26,664 (£5,376 preferred and £21,288 ordinary) from the Bank of Scotland, Commercial Bank of Scotland, and Royal Bank of Scotland; £18,168 (£6,565 preferred and £11,603 ordinary) from family members for trust settlements; and £1,490 from various tradesmen, retailers, and professionals. Total claims initially were £57,594 and £11,272 of family claims had been either rejected by Horsburgh or withdrawn by Jamieson acting for family members. Total assets realized (net of trustee expenses of £2,194) were £22,641. Preferred claims were settled for £11,941 and ordinary creditors received £10,700 in four separate dividends amounting to approximately 31% of ordinary claims when the sequestration was completed in 1892. A major part of the sequestration focused on identifying the heritable properties owned by DSR at his death that could be used to settle his creditors' claims. The opinion of legal counsel was specifically sought on the landed estates conveyed by DSR to TRC prior to his death, and, with agreement from family members who waived settlement rights and other debts due, the realizable heritable estate of DSR was determined as Lawhead at Stobwood (valued at £6,238) and Woolfords Farm (valued at £8,327). Together with market securities valued at £5,376 held by the Royal Bank of Scotland, these were the principal assets of DSR at his death.

Late in 1890, the General Life & Fire Insurance Company petitioned for the sequestration of GRC in the Court of Session [data hereafter from CS318/39/50; see Appendix, columns 3 and 4]. A smaller creditor in London lodged a similar petition for the sequestration of TRC [data hereafter from CS318/41/52;

see Appendix, columns 5 and 6].<sup>8</sup> These actions reveal the solvency of GRC and TRC as almost totally dependent on heritable properties that DSR conveyed or contingently conveyed under trust settlements prior to his death. The accounting records of his trustee in bankruptcy, Francis More (1838-1905), Chartered Accountant (SAE, 1875), report total claims admitted against GRC of £18,508 (preferred £3,000 and ordinary £15,508), realized assets (net of trustee expenses of £531) of £6,325 (principally Murlingden House £3,000 and liferents £2,328), and two dividends totalling £3,325 and amounting to 21% of ordinary claims.

In the accounting records of TRC's trustee (also Francis More), there are total claims of £36,027 (preferred £18,000 and ordinary £18,027), realized assets of £19,803 (net of trustee expenses of £722), and two dividends totalling £1,803 or 10% of ordinary claims. The Whitehill estate was sold for £3,200, and the largest estate conveyed to TRC by DSR (Lawhead at Tarbrax and Easterhouses), initially marketed at £20,000, was eventually sold for £15,500 to settle the four preferred creditors secured over it for £15,000.

It is of interest to combine the separate bankruptcies of DSR, GRC, and TRC to determine the overall financial shortfall associated with the Souter Robertson estates in 1888 (see Appendix, columns 7 and 8).<sup>9</sup> Preferred claims amount to £32,941 (of which £11,376 is bank debt) and ordinary claims £67,916 (of which £49,222 is bank debt). Assets recovered of £52,216 met £3,447 of trustees' expenses and fees. Dividends on ordinary claims of £15,828 represent 23% of ordinary claims. Using Officer [2008] and a Gross Domestic Product Deflator [GDPD] from 1890 to 2007 to calculate approximate 2007 monetary equivalents for these 1890 amounts, total claims in 2007 terms are £10,110,914 (bank debt £6,074,950) and net recovered assets are £4,889,092.<sup>10</sup> The overall deficit of assets of £5,221,822 amounts to 52% of total claims.

These data reveal a financial disaster for DSR and his family. The overall shortfall was due to a combination of growing

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<sup>8</sup>In 1890, SSR, the eldest son of DSR, was declared bankrupt in the High Court of Justice in Bankruptcy in London. No records are available for this action other than the announcement of his discharge following his death in 1898 [*London Gazette*, 1899, Vol. 29, 147: p. 8,642].

<sup>9</sup>These numbers exclude the bankruptcy of SSR.

<sup>10</sup>Officer [2008] provides five different price indices from 1830 to 2007 inclusive. The GDPD is an index that attempts to capture all price changes in the period concerned. 2007 is the latest year available.

bank debt over many years and settlements to an extensive family. When DSR built Lawhead House and Auchengray Church in 1859 and 1860, these projects were funded, respectively, by individual secured investors and unsecured bank debt. That DSR conveyed financially burdened properties to his sons when they were also accumulating considerable unsecured bank debt in their own right reveals little financial commonsense or competence by either DSR, his sons, or the three major Scottish banks involved. Bank debt in the sequestrations of DSR, GRC, and TRC exceeded £6,000,000 in 2007 terms. The estate of DSR had insufficient assets to meet his contracted bank and family settlement obligations. Without any free surplus from conveyed assets from their father, GRC and TRC had insufficient funds to meet their growing debts.

### LESSONS FROM THE DSR HISTORY

As revealed in Brown [1905], Stewart [1977], and Lee [2006a], the history of DSR is a story of apparent professional success and financial prosperity. For many years during and following his professional practice, DSR lived the life of a Scottish landed gentleman, and his sons adopted the same lifestyle. In reality, however, as discovered in archives unknown at the time of previous research, their lives were founded on a combination of conveyed and burdened assets and unsecured lending by banks. At least part of this situation is explainable. In the context of Victorian society, the professional and social connections of DSR were significant. He was a sheriff clerk for Edinburgh and a deputy lieutenant of two Scottish counties, held directorships in major financial institutions, and the Duke of Hamilton was his main practice client. His son-in-law, George Auldjo Jamieson, was not only one of Scotland's leading Chartered Accountants and bankruptcy practitioners but also a director of the Royal Bank of Scotland from 1867 to 1900. Jamieson was SAE President from 1882 to 1888. No doubt all of these matters aided GRC and TRC when they borrowed from banks.

Bankruptcies of Edinburgh professional practitioners such as DSR were relatively infrequent but not unusual in the early to mid-19th century. For example, William Inglis of Middleton, a socially well-connected Writer to the Signet and banker, was sequestrated in 1828 [CS96/841/1-10]; James Swan, also a Writer to the Signet and businessman, was sequestrated in 1834 [CS227/65578, CS96/790]; and William Paul, one of the most influential public accountants in Edinburgh, was sequestrated

in 1848 [CS279/2034]. Although Paul's bankruptcy was notified in the *Edinburgh Gazette* [1848, Vol. 5,726: p. 99], such matters were usually carefully managed in the Victorian era in order to preserve the reputation of the bankrupt individual.

The Bankruptcy (Scotland) Act 1856 permitted sequestration to be undertaken without public notification if creditors agreed. This is consistent with the Victorian view of bankruptcy as a penalty for inefficient business practice that raised the prospect of sudden impoverishment and social ostracism [Hobsbawm, 1968, pp. 154-155]. Indeed, financial scandal could prove damaging to the careers of public figures [Taylor, 2005] despite the law being prejudicially more tolerant to upper and middle-class than working-class failure [Johnson, 1993]. The fictional depiction by Victorian authors, such as Charles Dickens, of bankruptcy as a horrifying and tragic affair is an explicit signal of contemporary social attitudes to financial failure [Landow, 2001]. To the Victorians, "credit was virtuous, speculation corrupting, and debt sinful" [Hunt, 2001, p. 8]. Thus, it is unsurprising to find in the context of the current study, the secretary of the Scottish Conservative Club notifying TRC's trustee in bankruptcy that he was no longer a member [CS318/41/52]. There was no public notice in the *Edinburgh Gazette* of the sequestration of DSR's estate, although those of GRC and TRC were routinely intimated; e.g., their discharge from bankruptcy was announced in the *Edinburgh Gazette* [1895, Vol. 10,643, p. 94]. The records of the SAE make no mention of DSR's sequestration because his death removed him from membership before a decision was required on the matter by its council. However, his sequestration cannot have been a matter of comfort for DSR's son-in-law, Jamieson. Not only was he related by marriage to DSR and the trustee in various family settlements, he was also the SAE president in 1888. There was no mention of the DSR bankruptcy in the Scottish newspapers.

The archived facts in the current study evidence DSR as acquiring substantial heritable properties funded by long-term bank and private debt over many years and conveying several of these assets to two of his sons despite the properties being burdened by debt and previous marriage and other family trust settlements contingent on his death. This situation is not easy to comprehend as DSR was an experienced lawyer and public accountant who specialized in bankruptcy trusteeships and the management of one of the largest property estates in Britain. Despite this professional background, he created a financial structure of insolvency for his estate and the estates of members

of his immediate family. That Scotland's three major banks at the time contributed to this state of affairs by continuously lending long-term and unsecured on assets encumbered by settlements contingent on DSR's death has certain similarities with contemporary bank lending associated with the so-called "credit crunch" and global financial crisis. The financial position of DSR and his sons undoubtedly deteriorated when agricultural depressions in the 1870s and 1880s significantly reduced the value of landed estates and impacted owners' income. Devine [1999, p. 454] specifically argues that these depressions particularly affected smaller landowners in Scotland as their incomes fell below commitments for interest and debt repayments and family annuities. This is consistent with the states of affairs of DSR and his sons. As with many mortgage-holders today, DSR, GRC, and TRC were overleveraged when a property bubble burst.

As argued generally by Gladwell [2008], DSR's position as a successful outlier in public accountancy prior to death and an unsuccessful outlier after death is explainable in terms of his background. He was a member of a family with roots in land ownership and commercial activity that led to his professional career as a lawyer and accountant. This career included the management of a large landed estate that presumably influenced him to become a landed gentleman in his own right. All of these factors combined to expand his landed estates and provide for his family. This was achieved with considerable assistance from major banks and would not have been the failure it was if debt had been kept in manageable proportions, property values had continued to rise, and family settlements had been made for sensible amounts. In other words, the sequestration of DSR posthumously was a consequence of where DSR came from in his private and public lives. It also reveals the ambiguity of an outlier in historical research. Success is not always what it appears to be.

The current study also raises several general and specific issues for the accounting historian researching the Victorian period. The combination of these issues supports the argument that historical biographies are approximate and temporary matters. The issue of outliers in accounting history identified in this study is relevant and useful so long as the research includes negative as well as positive examples. It is reasonable to suggest in biographical accounting history research that there is a natural bias towards successful outliers that can be identified as significant contributors to history. Unsuccessful outliers are less frequently researched, and then typically only in relation to

negative events such as fraud. The case of DSR is important because it demonstrates that prior research wrongly implied that his contribution as a founder of institutional public accountancy was entirely positive. In the context of the SAE's origins, he was a founder that best fitted the template of its establishment; i.e., a public accountant closely associated with the legal profession (as a lawyer) and landownership (as a landed gentleman). However, the existing positive histories of his life and career can now be set against the negative features discovered about his sequestration.

The research of outliers such as DSR in this study demonstrates how biography is rarely definitive or complete. In particular, the death of an outlier does not necessarily signal the end of the research. In the case of DSR, reliance on existing secondary sources for biographies provided an incomplete and somewhat misleading history of the man. Thanks to the discovery of a previously unknown family genealogy, DSR and his sons were eventually discovered to have been bankrupt at his death in 1888. In addition, improved access to archival sources meant these bankruptcies could be investigated in detail. None of the existing biographies or the family genealogy of DSR mentions his sequestration.

In the context of financial problems such as insolvency, archival sources such as the *Edinburgh Gazette* and the *London Gazette* are useful starting points for searches about specific bankruptcies. Sequestrations were expected to be publicly notified in these publications. However, because of Victorian bankruptcy statutes permitting privacy for the bankrupt, these sources do not reveal the existence of every sequestration. In the case of DSR, the lack of a formal record of his estate at death in the *Sheriff Court Inventories* maintained by the NAS signaled that something abnormal had occurred when he died.

The difficulty of researching a bankrupt Victorian accountant specifically and professional misconduct by accountants more generally is exacerbated by the inconsistencies of public accountancy bodies at that time when they identified these matters for disciplinary purposes and recorded facts relating to the disciplining. Because DSR's bankruptcy was discovered after his death, the SAE did not investigate the matter or discipline him. However, it is reasonable to argue that if the sequestration had been discovered before his death, it is likely his removal from membership would have been factually stated without much relevant explanation as was the case with other removals from membership of the period [Walker, 1996b].



A more general problem for the accounting researcher as seen in the case of DSR is the predilection of families, particularly of the Victorian period, to change their names. Such changes impact searches in archived and secondary sources and make the accurate discovery of relevant facts for biographical research exceedingly difficult. For example, DSR was born as David R Souter and was subsequently recorded in public records such as marriage or census as David Souter, David Souter Robertson, David Souter-Robertson, David Robertson, and D Souter Robertson. Similarly, his sons were born as George and Thomas Robertson Souter and later became George and Thomas Robertson Chaplin or George and Thomas Chaplin in the public record.

The case of DSR and his sons GRC and TRC provides a useful case study of Victorian attitudes to upper and middle-class bankruptcy. The sequestration of DSR was a private affair and was not publicly announced. In contrast, those of his sons were part of the public record. Despite this, GRC appears to have successfully survived his sequestration by remaining in South Africa where he was a resident magistrate under the British South Africa Company in the Victoria District of Mashonaland. By 1901, he had returned to Scotland and was the factor and agent for a major landed estate in Aberdeenshire. Although he had no paid occupation prior to his bankruptcy, TRC moved to London and eventually became the chief inspector of a major insurance company, Scottish Provident Institution. Despite the financial events following his death, DSR's generosity to the rural community of which he was a part for several decades continues to be remembered on a plaque on the wall of Auchengray Church.

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## APPENDIX

## Sequestrations of David Souter Robertson and Sons

	1	2	3	4	5	6	7	8
REALIZATIONS	DSR	DSR	GRC	GRC	TRC	TRC	TOTAL	TOTAL
	£	£	£	£	£	£	£	£
Heritable property		14,565		5,328		18,800		38,693
Moveable property		10,270		1,528		1,725		13,523
Total		24,835		6,856		20,525		52,216
Less: expenses		2,194		531		722		3,447
Net funds		22,641		6,325		19,803		48,769
<b>CLAIMS</b>								
	£	£	£	£	£	£	£	£
<b>Preferred</b>								
Banks	5,376		3,000		3,000		11,376	
Private lenders	–		–		15,000		15,000	
Family trusts	6,565				–		6,565	
		11,941		3,000		18,000		32,941
<b>Ordinary</b>								
Banks	21,288		13,144		14,790		49,222	
Family trusts	11,603		–		–		11,603	
Other	1,490		2,364		3,237		7,091	
		34,381		15,508		18,027		67,916
<b>Total</b>		46,322		18,508		36,027		100,857
Dividend 1		5,424		2,848		1,198		9,470
Dividend 2		2,047		477		605		3,129
Dividend 3		1,741		–		–		1,741
Dividend 4		1,488		–		–		1,488
<b>Total</b>		10,700		3,325		1,803		15,828
Source: NAS, sequestration records of DSR, TRC, and GRC [CS/318/36/282, CS/318/41/52, CS/318/39/50].								

*Accounting Historians Journal*  
Vol. 36, No. 2  
December 2009  
pp. 93-111

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## ACCOUNTING AND CONTROL IN THE PERSEPOLIS FORTIFICATION TABLETS

*Abstract:* The bookkeeping records collected and retained by accountants of the Persian Empire centered at Persepolis from 509-494 B.C. are examined in this paper. A powerful bureaucracy exercised control over foodstuffs to supply an immense number of royal and state personnel and workers with their ration needs. A sophisticated accounting system facilitated this control, making visible not only the quantities of food assets distributed but also the locations and individuals responsible for these distributions.

### INTRODUCTION

One of the great pleasures of exploring documents of the ancient world for the accounting historian is discovering how very important accounting/bookkeeping has always been. While it may be extreme to assert, as have some, that the necessity of counting and recording led to writing, it is fair to say that accounting (bookkeeping) preceded writing [Schmandt-Besserat, 1992; Mattessich, 1994, 1998]. For millennia, people and institutions have tracked their possessions for the purpose of protecting, maintaining, and expanding them if possible. Those with many possessions had to work harder to track them when forced to transfer maintenance of the property to others. This paper introduces the bookkeeping of the administration of the ancient Achaemenid Persian Empire which flourished between 550 and 330 B.C. through the archive of the Persepolis Fortification Tablets. The archive is large, and unlike others of substantial size, is completely translated [Hilprecht and Clay, 1898; Clay, 1906]. This allows scholars not conversant with ancient languages to study the tablets from their own perspective of interest.

The fallibility of memory is well-known, and it is unlikely that this weakness is a discovery of the modern era [Loftus, 2003]. While researchers study how we recreate and distort memory, the fact of the malleability and unreliability of memory must have been known throughout history. In addition to the limitations of memory, there is the fear of deliberate fraud.

Recordkeeping removes the anxiety of memory failure by storing memories and ameliorates problems of fraud by forcing parties to agree to a transaction or an audit and to record it. Basu et al. [2009, p. 1,009] demonstrated experimentally a “link between recordkeeping and reciprocal exchange.” They posited that recordkeeping aided memory, helped establish reputations, lessened risk, coordinated activities, and thereby created the space for complex and expansive transactions and systems. Large bureaucracies and businesses are only possible in the presence of recordkeeping. Equally so, recordkeeping does not exist simply because it is possible; it exists because it must. Records store memories, facilitate exchange, allow barter economies to flourish, bestow and maintain legal rights to property, monitor behavior, and may be used for planning and control.

The Achaemenid bureaucracy used a sophisticated accounting system to control the collection and distribution of food commodities to work groups, animals, temples, and royal and noble households. The research question is to explore the accounting and bookkeeping technologies of this state archive. What system was in place? For what purposes was information generated? Is there enough evidence to state that our own accounting inheritance flowed to us through this period? The contribution of the paper lies in the best answers possible to the question of how an ancient people controlled their assets and minimized threats to those assets, including memory failure and theft.

## LITERATURE REVIEW

Hundreds of thousands of individual written texts and fairly extensive archives of related texts have survived from the ancient world, particularly from the Middle East and Greece, from as early as 3000 and 2000 B.C. respectively. As early as 8000 B.C., there appeared clay tokens and clay envelopes to enclose them. These tokens, which offered a method of accounting for and protecting commodities before writing, form the focus of Schmandt-Besserat's [1992] research. For example, an owner hires someone to guide his herd of goats to another location. He would take a number of tokens corresponding to the number of goats and enclose them in a clay envelope. On the envelope, he would make impressions that also corresponded to the number of goats and would inscribe it with his seal. The shepherd could not change the envelope and the number of tokens inside without breaking the envelope and losing the seal.

Regarding texts written later on clay tablets, some survive from families of note and means such as the Murashu archive from Nippur (454-404 B.C.) [Hilprecht and Clay, 1898] and the Kasr archive from Babylon (465-404 B.C.) [Garrison and Root, 2001, p. 32]. Others survive from the state or other non-private institutions such as the Temple Archives of Nippur (c. 1531-1155 B.C.) [Clay, 1906]. Nissen et al. [1993] compiled a collection of bookkeeping records from the third millennium B.C. They present tablets that tracked labor and herds over years. Van Driel and Nemet-Nejat [1994] also studied a tablet summarizing the growth of a herd of sheep and goats and the yields of their wool from Eanna dating from 559 B.C. Palaima [2003] examined the records and apparent scribal traditions in the Mycenaean period. For fascinating accounts written by archeologists for the general public, see Chadwick [1958] and Chiera [1938].

Relatively little study of ancient records has entered the accounting literature. Mattessich [1994, 1998] used Schmandt-Besserat's work to posit the genesis of the debit/credit system. Some study of Greek and Roman accounting has occurred. De Ste. Croix [1956] surveyed evidence from the sixth to the first century B.C. He found primarily accounts of receipts and expenditures in both list and prose formats but no evidence of profit calculations. Hain [1966], Rathbone [1994], and Oldroyd [1995] also contributed to the study of Roman accounting. Seals, representing signatures, were the rule in the Roman Empire as was the case in the Persian Empire. Vollmers [1996] focused on the use of personal and institutional seals on the tablets of this, the Persepolis archive, to demonstrate the management control system in place. The most prolific accounting scholar is Ezzamel [1994, 1997, 2002a, b, c, 2004, 2005], who has generated a large body of work on accounting in Egypt in both the private and public spheres. With collaborators [Ezzamel and Hoskin, 2002; Carmona and Ezzamel, 2007], he has also contributed to theoretical work on writing, counting, and accounting, drawing on the Mesopotamian and Egyptian literature. Vollmers [2003] addressed issues facing accounting scholars choosing to work in the area of ancient accounting. Both she and Carmona and Ezzamel [2007] define accounting broadly, refusing to limit it to modern notions of markets and double-entry bookkeeping.

## THE PERSEPOLIS FORTIFICATION TABLETS

The Persepolis Fortification Tablets, the subject of this paper, were part of the Persian Empire's administrative system.

This archive of about 33,000 complete and damaged clay tablets, written in Elamite cuneiform, was found and excavated in 1933-1934 by an expedition of the Oriental Institute of Chicago, led by Ernst Herzfeld. Herzfeld reported that these tablets had been deposited as fill, and subsequent scholars accepted and repeated this statement; however, it is now generally accepted that these were not discarded artifacts but were found in archive rooms [Brosius, 2003, p. 265]. The tablets became available for study in 1937, and Richard Hallock published 2,087 of them in 1969 and 33 more in 1978. In his monumental work, Hallock [1969] presented the texts in transliteration and translation, organized them by category, and identified seals and seal usage on each. There is also considerable scholarly textual matter. Other tablets have since been published, e.g., by Hallock [1978], but not in large quantities. Altogether about 5,000 have been studied, but many fewer have been published.

These clay tablets and clay labels were the administrative, bookkeeping records of the Achaemenid Empire from 509-494 B.C. under Darius I (c. 549 B.C.-486 B.C.), who came to power c. 522 B.C. and ruled for 36 years. The dated tablets (over 1,700 of them) are not evenly distributed over the 16 years. Half are dated in the twenty-second and twenty-third years of Darius' reign [Hallock, 1969, p. 74]. There is no satisfactory theory to explain this and other anomalies of the tablets' distribution across time. Most of the tablets were accompanied by perishable documents, hides or parchment [Brosius, 2003, p. 280]. Indeed, many reference the no longer extant document and over 82% of them display holes at two edges formed by the string that had been sandwiched between two clay "patties" pressed together by the scribe to form the tablet. That string was attached to the sealed document which authorized the transaction. The likelihood that the authorizing document was perishable rather than another clay tablet is supported by the fact that despite the many references to them, none have been discovered. The tablets reported on the movements of food commodities and on the ration allocations of foods to people (workers, travelers, and royalty or nobility), animals, and temples (for offerings). The rations are usually grain and wine but sometimes fruit and cattle. The tablets track insignificant amounts of commodities as well as massive quantities being distributed to large work groups in the area around Persepolis and extending to but possibly overlapping with another administrative system in Susa (324 miles away). The food originated on large estates, but whether they were private, supplying storehouses as taxation or for some

other kind of consideration such as free or reasonable access to irrigation canals, or whether they were royal or state holdings operating to supply needs of workers for the state, is unknown. Aperghis [1998, p. 35] takes the position that these foodstuffs were tax payments.

### THE SEALS OF THE ARCHIVE

Bookkeeping is a major element of any control system, and an important component of this administrative control system is the use of seals impressed on the tablets. The seals will not be a focus of this paper as they were in Vollmers (1996), but they demand mention. As today, seals represent a signature or authorization. Some tablets bear many seals, others none, many have one, many have two. The seals can represent individuals, an "office" with jurisdiction over an area, or a storehouse/supply station or travel stop. When a tablet is impressed with only a single seal, the seal is normally that of a person of high rank even though the tablet records a transaction that involved another person. Also common is a seal that represents an office with a substantial range of authority. This becomes clear when a single seal is used by different people. When there are two seals, then usually there is a transaction involving people of lower but similar rank. A curiosity is that the seal impressions were placed on the tablet *before* the text was inscribed. One imagines that the parties affixed their seals, waited for the text to be written, listened to it being read back to them, and, if satisfied, left. If not, the tablet must have been destroyed or erased (if still damp) and redone. Erasures can be seen. It is highly unlikely that the tablet could be changed after it had dried. There are many idiosyncrasies surrounding seal usage, and none of the statements made here on seal usage can be universally applied.

Many scholars have studied the seals and seal distribution to uncover the administrative system that existed. These include Hallock himself [1969, 1977], Aperghis [1997, 1998, 1999], Vollmers [1996], and Briant [1996]. Databases have helped in this effort, and Aperghis has used them extensively. Garrison and Root [2001] have published a massive work available online, studying the seals from an art historical perspective. Their work is broad and contains an abundance of general information about seals as well as an extensive bibliography. However, Hallock's [1977, p. 127] statement still holds:

I have been contemplating the seal impressions on the Persepolis tablets for about thirty-five years. In that



time I have made some discoveries about the ways they were used, but I am still confused about many things. It is one of those cases in which if you are not confused you do not appreciate the problem.

Why, for example, do some people seal the tablet in many places and others in only one? When there are multiple seals, are there multiple people involved or do some people use more than one seal or have a seal with more than one impression (they do exist) [Garrison and Root, 2001, pp. 11-13]? Many of what Hallock [1977] calls *deposit* texts (the categories he chose will appear italicized in this paper), stating that a commodity has been deposited to an account, which are single sentence texts, have four seals. It is difficult to imagine why four people would be involved. Why does one supplier of travel rations never use a seal when all others do [Hallock, 1977, p. 132]?

### THE BOOKKEEPING

The historian who works with more recent archives, such as those from the 19th century, can anticipate what will be found. Assuming that the family or business of interest has retained somewhat complete records, the historian will likely find most of the following: journals, ledgers, letters, and receipts. Among the receipts will likely be ones for single items as well as records from stores or other businesses detailing purchases and payments over several months or a year.

These document types are similar to those found in the Persepolis archive and are distributed in similar proportions to that of more modern archives; that is, many receipts (or texts similar to receipts), some ledger accounts (no actual ledgers since there are no books), and letters (between the two but tending to be few in number rather than many). There are no journals as accountants understand the term, a chronological record of transactions. If they were needed, they existed in a perishable form or individual tablets may have been collected together and stored in a chronological way. Tablets could not be kept damp for very long, so a document needing continuous updating could not exist.

There are large tablets that resemble ledger accounts because they contain only one account, that of a single commodity handled by specifically named people from a specific location. Hallock calls them *journals* or *accounts*. The distinction between the two categories as he created them is in many cases illusory. He states that all *journal* texts begin with a list of at least two

disbursements, and the *account* texts do not begin with such a list. While true, there is more variety than this distinction suggests. The *journal* tablets also remind us of vouchers. A voucher, recalling basic office records, was prepared only when all supporting, signed documentation had been received. Such appears to be the case with these summary tablets. They were prepared only when documentation was available and usually only when that documentation was properly authorized by means of sealed documents (there are exceptions, of course). Most of the large tablets share characteristics with modern ledger accounts and vouchers and are therefore hybrids of the two forms. They often contain unique tables.

*Receipts:* The vast majority of texts are receipts, about 1,730 of them. Here the term “receipt” is used in a modern way, i.e., a written acknowledgment of a transaction. They were usually sealed by one or more people either as individuals and/or as the representative of a storehouse or other office. Hallock also used the term but in a more specialized way. He named texts *receipts* when they represented a “receiving” of a commodity. Other texts he named *deposits* when they represented a “depositing” of a commodity. Both are receipts in modern terminology. There is evidence that two texts were prepared for each transaction as today [Aperghis, 1998, p. 55]. Some examples of receipts follow. “Bar” and “Marris” are dry and liquid measurements respectively equal to ten quarts. Dates refer to regnal years of Darius:

PF 708: 360 Bar of grain, supplied by Pirtis, in behalf of the king, horses consumed. At Bessime. In the 22nd year. Haturka was the grain handler. (single seal)

PF 1213: 7½ Marris of wine, supplied by Ibaturre, Marrayadadda received, and gave it to post partum women, whose apportionments are set by Ustana. 6 bearing male children received each 1 Marris. 3 bearing female children received each 5 qa (1/2 Marris). (2 seals)

PF 930: 385½ Bar of grain supplied by Misparma, workers subsisting on rations at Zappi whose apportionments are set by Irsena, received as rations. Seventh month, 22nd year. 1 man 4, 14 men 3, 9 boys 2, 4 boys 1½, 11 boys 1, 5 boys ½. 1 woman 5, 19 women 4, 59 women 3, 6 women 2. 8 girls 2, 6 girls 1½, 4 girls 1, 6 girls ½. Total 153 workers. (1 seal)

PF 175: 315 Bar of grain has been deposited as kem (?) to the account of Ramadawis at Baktis. In the 22nd year. (3 seals)

PF 449: 25 Bar of grain, supplied by Bakubesa, the 21st year, was set aside for seed. (2 seals)

This small but representative sampling shows that each “receipt” contains similar information – the amount of the commodity; the supplier; the person to whom it is rationed, the amounts, and to where it was moved; the name of the apportioner, the officer who decides on the ration quantities; the date; and a seal or seals. Not all of this written information is always present (with one exception, the amount of the commodity is always there), and there are no texts that say “some grain” or “some wine.” The object of control is the commodity. There are receipts for as little as 2½ quarts of grain and receipts for multiple thousands of bars of grain. Every quantity is accounted for. Additional information that the accountants may have needed may be duplicated by or expressed by one of the seals or in some other way. The storehouse or storehouse personnel associated with a tablet but not named on it may well be obvious to the Persepolis administrator who knew the seal. When the tablets were delivered to Persepolis, and almost all of them originated outside of Persepolis, they would have been carried by someone who knew the storehouse from which they came. The date would have been known because the tablet was sent to Persepolis for recording in the month/year in which it was written. If not, the date was certainly recorded.

*Labels:* Hallock’s *label* texts support this supposition. Most of these small artifacts bore no seal, but holes in them show that they had been attached to a container and/or other documents; e.g., PF 1884 (“Grain of the place Rasinuzza, 22nd year”) and PF 1905 (“This is the total of sheep dispensed in the 22nd year at Maknan, apportioned by Susika.”). They sometimes identified the place and the date, data occasionally missing from the individual tablets. In addition, since the tablets were accompanied by a “sealed document” (long ago disintegrated), information not present on the tablets may have appeared on it; e.g., PF 1915, “This is a sealed document concerning wine of the place Razakanus, 23rd year, supplied by Appumanya.”

*Accounting Balances:* These texts attest to amounts remaining in inventory. They were used to prove the receipts and disbursements of the commodity at the storehouse handling the grain of a specific grain handler. Counting inventory is a control over assets to minimize theft. Hallock [1969, p. 15] writes:

All these texts contain the phrase *sutur daka*, 'balance carried forward.' ... How to reconcile this use of *sutur* with its use in DB 63:80 (on the Behistun monument to Darius) in the meaning 'right' or 'rectitude' is something of a problem. But presumably the unifying concept is one of 'correctness.'

Hallock was right on point. These were "audited" balances. They were "correct." Not only is the balance noted, so too is the fact that the accounting or reckoning took place. No doubt the sealed documents accompanying them also did so:

PF 240: 9502 Bar of grain has been carried forward as balance, supplied by Bakadusda, at Liduma. In the 22nd year, twelfth month, the accounting was done. (1 seal)

PF 252: 4 Bar of kazla, 6 of irtastis, total 10 Bar of fruit, has been carried forward as balance at Mazikka, supplied by Marrezza. In the 20th year, ninth month, Ussuma reckoned it. (1 seal)

*Journals and Accounts:* Hallock called tablets *journals* that are compilations of tablets of similar types. There are 26 of these, many of which are very large. Some are lists only of ration disbursements. Others add a summary, and still others add both a summary and a table. His category *accounts* (68 tablets) is similar in the information provided, but these tablets do not contain the list of disbursements. Many of the *account* tablets are meant to accompany a *journal* tablet. Indeed, the *journal* tablet listing only disbursements is incomplete.

PF 1944 is an example of a list-only *journal*. It is abridged, omitting quantities consumed at the individual level. This document compiles the grain disbursements from a supply station near Shiraz in the twentieth year of the reign of Darius, handled by Maumamassa and Muzriya. Grain handled by others working with that supply station would have been compiled on another tablet. The likely process follows. Individual tablet receipts were prepared in duplicate as disbursements were made in accordance with a sealed document authorization. Both the supply station and the person receiving the supplies would need a receipt. Therefore, each supply station must have had a resident scribe as did those individuals whose sealed documents were sent for supplies.

Periodically, all the receipts constituting specific, authorized disbursements, "in accordance with a sealed document," from

**TABLE 1**  
**Example of a List-Only Journal: PF 1944**

60 Bar the boys of Parnaka received as rations. 2nd month, 18th yr and they are receiving the sealed document in the 20th year at Hadaran.
300 Bar with a sealed document of Suddayauda, workers subsisting on rations at Shiraz, Treasury workers, whose apportionments are set by Suddayauda, received as rations. 3rd and 4th month, 20th year.
2020 Bar with a sealed document of Rasda, workers subsisting on rations, of the abbakis (woman), received as rations. For the 5th and 6th months. (Note, this represented 403 people)
1017 Bar with a sealed document of Rasda, workers subsisting on rations, of the abbakis (woman), received as rations. For the 7th month.
31.2 Bar the tidda makers received and gave it as sat to workers subsisting on rations, whose apportionments are set by Suddayauda at Shiraz. For the 8th, 10th and 12th month.
78 Bar the tidda makers received and gave it as sat to workers subsisting on rations, whose apportionments are set by Rasda at Shiraz. 5th and 7th months
16 Bar with a sealed document of Rasda, Irdaksara received and gave as kamas to workers ... post partum women. 8th, 9th, 10th, 11th, 12th months
5 Bar with a sealed document of Rasda, Irdaksara received. He gave it as kamas to exeters (?) 6th month 20th year.
14 Bar with a sealed document of Ustana, he gave as sat to 5 young horses. Each consumed 1 qa daily. For 2 months, the third and fourth, 20th year.
42 Bar with a ..., 1 horse consumed 3 qa daily, 2 horses each consumed 2 qa daily. For 2 months, the ninth and eleventh, 20th year.
42 Bar with a ..., 1 young horse consumed 3 qa daily, 2 young horses each consumed 2 qa daily. For 2 months, the eight and twelfth.
30 Bar with a ..., he gave as sat to young horses. 1 horse consumed 3 qa daily. 2 horses each consumed 2 qa daily. For a period of 2 months, the fifth and seventh, 20th year.
7 Bar with a ..., he gave as sat to 2 young horses. Each consumed 2 qa daily, 1 qa of this total was issued ... (?). First month, 20th year.
18 Bar ..., he gave as sat to 2 ber horses. Each consumed 3 qa. Sixth month, 20th year.
Total 3680.2 Bar dispensed according to this tablet, grain supplied by Maumassa the grain handler and Muzriya the delivery man, ... at Shiraz. (one seal)

Source: PF 1944 (entries abridged)

this supply station in Shiraz were gathered in a container with a *label* text attached and were sent to the accountants at Persepolis. It is possible that the scribe at the supply station, or an accountant who traveled to the supply station, may have compiled the tablets, but all documents were transported to Persepolis. There an accountant organized them by grain handler and by type of disbursement (workers, horses, temple gifts) and copied them onto a larger tablet. For efficiency and to save space, he abbreviated (PF 1223 was copied into this tablet, PF 1944, in a shortened form.). He also combined (PF 1676, from the eleventh month of the twentieth year, was combined with an identical one, no longer extant, for the ninth month to create one of the entries above: "21 Bar was supplied by Maumamassa. 1 horse daily consumed 3 qa. 2 horses daily consumed 2 qa. Eleventh month, 20th year."). The tablets for the eighth and twelfth months were also combined. The horses were given rations in all months but the second and the tenth. Since the horses must have been fed, either another tablet referring to those months existed or they received rations from another source. Another possibility is that this tablet is a record of some kind of reimbursement or other credit to the supply station for properly authorized disbursements only, and that the authorizations for those two months were missing. This is one of many mysteries surrounding the system in place.

Hadaran, a village mentioned on the tablet, was close enough to Shiraz for Maumamassa and Muzriya to handle its rationing needs. Another tablet, PF 1994, names them in the same year in conjunction with yet another local village, Hidali. One may conclude that these men were working for a producing estate and were handling its grain distributions to the local supply stations in Shiraz, Hidali, and Hadaran. The focus on specific people is responsibility accounting. Grain supplies were protected by monitoring those responsible for its transportation and delivery.

The first entry names Parnaka, uncle of Darius, who was likely the second highest ranked person in the empire. It refers to a transaction that occurred in the eighteenth year but was not recorded until the twentieth year because the "sealed document" was not received until then. This suggests a control system of some weight was in place. The grain was likely owned by the state, by the king, or some other high ranking personage demanding a close accounting regardless of the rank of the receiver.

This tablet is reminiscent of posting to a ledger. Just as

businesses create as many accounts as needed for informational or control purposes, the state needed to track commodities by supply station and by those responsible. It is unlikely that it was used for planning purposes since the tablet was prepared after the fact, but it may have contributed information for reward and promotion. Aperghis [1999, pp. 181-182] demonstrated promotional movement through seal analysis.

**TABLE 2**  
**Another Journal Example: PF 1951**

72 Bar Mitukka the Magus received for the libation of the <i>lan</i> ceremony for 12 months.
245 Bar, sealed document of Tetukka, workers at Kariran received for 7 months, the 3rd to 9th.
318 Bar, ..., workers at Kurtimas received for 6 months, 3rd to 8th.
180 Bar, ..., workers at Kurtimas, received for 3 months, 9th to 11th.
150 Bar, sealed document of Harmasa, workers at Tukkamassatas....
100 Bar Narak.....received.
[summary]
161.6 Bar on hand as per account
1,000 Bar for provisions in the 21st year, grand total:
1,161.6 Bar on hand
1,065 Bar dispensed [ <i>this equals the total disbursements above</i> ]
Total 96.9 Bar carried forward as balance, this being the total of grain at Kariran, supplied by Tarkasuma and Bakapikna his delivery man. This account was made in the 21st year. The grain was apportioned by Hamarsa. [two seals]

Source: PF 1951 (individual entries are abridged)

Even more like a ledger account is PF 1951, a *journal* text that begins with a series of grain disbursement entries followed by a summary. The major difference between this tablet and the previous one, besides size, is the summary portion with its two statements of a beginning and an ending balance and a statement of the grain that was provided. Though absent the familiar format, the summary is recognizable; it is a ledger account with separate disbursement details. The controls are on the disbursements and are proven by inventory balances per account. The



reason there are no details of the provisions is that they come from only one estate as evidenced by the many tablets called *Providing of Provisions*; e.g., PF 551, “1260 Bar of grain was provided for provisions. At Hisema. It was supplied by Ammamarda. 19th year. Sati-Simut will be apportioning it.” A particular storehouse, such as that at Kariran (PF 1951), may have had only one supplying estate which then did not need to be named. At the time the grain was delivered to the supply station, a receipt was prepared in duplicate, for the supplying estate’s agent and for the station itself. If, in the quoted case, Ammamarda was an agent of an estate, he would want evidence that the grain entrusted to him was delivered as promised.

**TABLE 3**  
**Example of Tabulated Journal Format: PF 1955**

Disbursement list [not reproduced: entries sum to 540 15/30, but total is given as 538 15/30]			
[Summary]			
115 carried forward in the account of the 19th year			
350 provided for provisions in the 20th year			
206 [3 entries from 3 named places]			
Total 671 on hand, in it:			
535 15/30 dispensed			
109 carried forward as balance			
19 1/30 issued to the man doing the delivering			
7 14/30 withdrawn			
Grain at Mezama, supplied by Karkis and Ukpis and Parnadadda.			
This whole account of the 20th year was reckoned in the fifth month.			
The female workers did not receive rations.			
i	ii	iii	iv
Set Aside	provided	withdrawn	barley at the ? at Mezama
120	230	970	barley 10 units
5	120	30	grain 30 units
125	350	1000	This is the total of the 20th year
It was set aside for cattle in the possession of Karkassa and Durakka they say.			

Source: PF 1955 (abridged)

Not all *journal* tablets are alike. In the summary section of PF 1952, there are some limited details of grain receipts but no entries called “provided for provisions.” All the grain received by this supply station was transferred from other supply stations where the official provisions had originally been recorded. The disbursements were listed first as in PF 1951.

Another *journal* format is differentiated by the presence of a short table at the end. In the example illustrated, PF 1955, the tablet begins with a disbursement list, not presented here, and a calculated total of 538 15/30 that neither equals the actual total of 540 15/30 nor matches the amount dispensed according to the summary section (535 15/30). It is startling that a tiny amount of a commodity dispensed or deposited warrants its own tablet; yet, the accountants do not appear to prize mathematical accuracy in the summary tablets. A possible conjecture is that the accountant receives the supporting documents (audited beginning and ending balances, individual receipts and disbursements etc.) and they do not add correctly. In the absence of an accepted way to recognize and fix an error (e.g., shrinkage, cash over/short), he has to make an adjustment in the compilation to force the balances to match. He chooses to alter the total of disbursements. Even if this is true, there remain plenty of examples of pure arithmetical errors in this archive, errors that bookkeepers using paper frequently made.

The statement in PF 1955 that female workers did not receive rations begs for an explanation since they must have eaten. This is a similar question to that involving the horses earlier. Did they receive rations from another source? Are these records of reimbursements to supply stations rather than actual records of disbursements to workers? That is, is this statement saying that the storehouse has not been reimbursed or will not be reimbursed for the rations of the female workers? Even if these translations were word perfect, full comprehension is illusive. There are unspoken practices and understandings behind the words and the transactions that escape us. Other tablets of the same type have similar statements, e.g., “at that time the workers received rations” (PF 565). One wonders why that had to be said since the ration allocations had just been spelled out a few lines previously.

The small table at the conclusion of the tablet is curious but not unique to this tablet; there are many others with the same form of table. There are two numbers there that link to the information given in the text, the amount provided for provisions (350) and the amount set aside for seed for cattle (the 125 is in

the disbursement list not presented above). The amounts in column iii cannot be mapped to the text. Aperghis [1997, pp. 278-279] believes that the amounts “withdrawn” never entered the storehouse in question but were immediately transferred where needed. There must be a reason, though, why these withdrawals are mentioned on the tablet. Could it have been for tracking purposes? For example, it could be interpreted as, “This grain, handed by Karkis et al., passed by here.” This station handled the set asides for seed and the full amount of grain needed to be stated to account for the amount of seed set aside. However, since the full amount was not needed at that station for any other reason, it was transported elsewhere.

The amounts in column iv do conform to what is found on other texts; e.g.,  $1/10$ th of the total of barley ( $970+230/10 = 120$ ) and  $1/30$ th of the total of grain ( $120+30/30 = 5$ ) after summing columns ii and iii is set aside for seed. These proportions are seen consistently on other tablets. Our understanding of what was recorded or needed by the intended reader is limited. Why do only certain numbers appear? Someone wanted to see those particular numbers isolated and emphasized. We may never know why.

The accountant(s) who created these large tablets had at hand individual receipts for disbursements, amounts set aside for seed, amounts provided for provisions, amounts transferred, as well as the beginning and ending balance tablets. From these, he (or they) could compose the comprehensive tablet that would allow some reader a relatively easy way to evaluate the demands on a commodity in one area under the control of specific handlers. This practice is similar to that of posting to a ledger, but the presence of authorized receipts reminds us of voucher accounting.

*Accounting balance, journal, and account* texts, prepared by accountants, bear usually one seal, that of the accountant or perhaps the office of the accountant. One visualizes the accountant organizing these large tablets on shelving awaiting the call for them. The smaller tablets were stored in a container with a label appended to be used as backup documentation.

The existence of tablets on which summaries appear tells us that PF 1944 shown above, which is comprised of disbursements only, was incomplete. There must have been at least one other tablet associated with it that has not survived. Indeed, several existing tablets specifically say that they are one of a series of tablets. Thus, many of the *account* tablets, none of which have a list of disbursements, were associated with a *journal* tablet too

large to contain the additional information needed.

The importance of following proper procedures is evident from several tablets which state that a proper accounting was *not* done. Some state that the accountants were not given the “sealed document,” and that the accountant had to record what the person said since that document was not available. That these statements were made attests to the high regard placed on proper recordkeeping. In addition, the single seal that most *journal* and *accounting* tablets bear suggests that the bearer or the office had a high rank. Two of the *accounting balance* tablets are sealed with Parnaka’s own seal. It is difficult to imagine that he counted the inventory himself. It suggests that the accountant was held in such high esteem that Parnaka allowed him to use his seal as confirmation of an inventory count. Parnaka may have lent the accountant the seal to grant access to the inventory itself.

## CONCLUSIONS

People adapt their bookkeeping technology to fit their needs. This administration needed to supply large numbers of workers and animals with foodstuffs. The hubs of this system were the many supply stations (or storehouses) where commodities were delivered and distributed. To ensure this was done efficiently, there was a need to track commodity rations and to hold people responsible for them. Organizing these tablets by person and supply station is an example of responsibility accounting and suggests a method for assessing the work of the grain handlers. They had learned that taking inventory was a necessary aspect of control. Despite the control of the authorizing “sealed document,” records of receipts and disbursements were suspect without the assurance of beginning and ending inventory figures. Hence the concern expressed when those figures were not available.

There are several tablets showing accountants traveling. Others mention the accountant who did the accounting. This indicates that the state incorporated into its recordkeeping system the need for an independent person, besides the resident scribe/accountant at the supply stations, to check inventory or perform other auditing type duties. The fact that the accounting is not done at regular intervals was a consequence of the travel times of these state accountants.

The building block of the recordkeeping system was the clay tablet receipt. Though small, they were awkward when

numerous. Hence the development of the compiled tablet that abbreviated and summarized the information needed. Once summarized, the smaller tablets were collected and stored as backup information. The larger tablets, one assumes, were organized in the archive by supply station and by commodity on shelves or on the floor. An administrator could check on the activity at any one station and evaluate performances. The suppliers and delivery men might be up for a promotion if they are handling enormous quantities of commodities without complaint. The provisions provided by various estates might also be checked to be sure they were producing the quantities that the administration wanted.

Although it is impossible to say that modern bookkeeping or accounting is directly linked to this system, it does appear that the recordkeeping need or impulse creates very familiar technologies, such as receipts, authorizations, summaries, and independent "audits." Controlling this massive rationing distribution system would not have been possible without good accounting. The Persian bureaucracy did indeed use accounting to hold people to account.

While those of us who work with historical archives consistently run the risk of carrying our understanding of the present into the past, of unavoidably holding on to our biases, we cannot avoid this without choosing not to share our findings with others. We take the data as they exist and interpret them as honestly as possible, leaving open the door to new interpretation in the light of new information.

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*Accounting Historians Journal*  
Vol. 36, No. 2  
December 2009  
pp. 113-137

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## **CORPORATE GOVERNANCE IN THE 19TH CENTURY: EVIDENCE FROM THE CHESAPEAKE AND OHIO CANAL COMPANY**

*Abstract:* Presenting evidence from a 19th century corporation, the Chesapeake and Ohio Canal Company (C&O), the paper shows that issues of corporate governance have existed since the first corporations were established in the U.S. The C&O used a stockholder review committee to review the annual report of the president and directors. The paper shows how the C&O stockholders used this committee to supplement the corporate governance structure. The corporate governance structure of the C&O is also viewed from a theoretical structure as espoused by Hart [1995].

### **INTRODUCTION**

The U.S. approach to corporate governance is being challenged due to corporate failures in the early part of this decade and the more recent decline in markets and the trading value of corporate equity securities. These recent episodes have raised public concern over corporate behavior in many areas such as compensation, performance measurement, and accountability.

While these corporate failures have diverse consequences and details, the conditions which enabled them can be related to corporate governance failures. Evidence and theory available to the investor show that managerial discretion combined with other incentives can cause managers to pursue personal interests at the expense of the investor. In their discussion of

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**Acknowledgments:** We express our appreciation to the anonymous reviewers and the editor, Richard Fleischman, for their comments and suggestions which improved the paper significantly.

corporate governance, Shleifer and Vishny [1997] try to answer the question of why investors part with their money in the face of potential managerial misuse of the investment. Currently, investors theoretically control management. In the 19th century, stockholders were directly involved in the corporation and established governance procedures and policies for the protection of their investments.

Hart [1995] provides a theoretical framework for corporate governance, describing the problem of incomplete agent contracts and how corporate governance relates. Hart proposes that if the agency problem exists and contracts are incomplete, then the structure of corporate governance has a role and is important. Five issues of corporate governance raised by Hart are: cost of agent contracts; individual stockholders are too numerous to exercise control on a day-to-day basis; large stockholders; limitations of the corporate board of directors; and the potential that management will pursue its own goals at the stockholders' expense. Resulting from these issues, providers of capital have designed systems of corporate governance with checks and balances to protect their financial interests in the corporation.

With methods of corporate governance and the success of those methods today being questioned, this paper reviews corporate governance from an historical perspective. While several studies [Roe, 1993; Charkham, 1994] have compared corporate governance methods between countries, few have looked at corporate governance in history [Gallhofer and Haslam, 1993].

## CORPORATE GOVERNANCE

Over the past several years, the structure of our corporate governance system has come into question. At Enron, the board of directors removed governance controls, allowing the CFO to operate off-balance-sheet partnerships that greatly obscured the true financial condition of the company. At Adelphia, the president ignored the economic entity assumption and used the assets of the company as his own. Before these companies faltered, some academics were already questioning our corporate governance system. Hart [1995] and Shleifer and Vishny [1997] published papers presenting evidence that there are flaws in the corporate governance system upon which investors rely. Both of these papers state the limitations of the corporate governance system and potential problems associated with those limitations. Issues mentioned in both papers include agency problems and large stockholders.

As previously indicated, Hart proposed a framework of corporate governance, maintaining that the market approach to monitoring corporate governance theoretically should create a good system of corporate governance that would work in all cases. Hart argues that a market view should not need a statutory corporate governance structure, but that the limitations of the market are not correcting all corporate governance issues. As an example, he regards the historical separation of chief executive and board chairman as a non-issue. However, one individual holding the position of both CEO and board chairman at a company can provide sufficient power to base business decisions on personal incentives. The recent failures of the market approach to corporate governance have led to statutory governance policies in the form of the 2002 Sarbanes-Oxley Act.

Shleifer and Vishny [1997] in their discussion of corporate governance make the observation that in lesser developed countries corporate governance is almost nonexistent. Undeveloped countries today have the advantage of the ability to observe and emulate the best practices of the developed world. By choosing the best practices of each country, these countries can create systems that are as good, if not better, than the systems currently used in the economically developed world.

However, what can be said about the origins of corporate governance? The earliest companies did not have the advantage of others to emulate. Using historical examples, we can review the development of our current corporate governance structures and obtain additional insights into these systems. This paper provides evidence that many of the current issues of corporate governance existed in 19th century corporations. The paper further illustrates how the issues raised by Hart are not new but have been related to corporate governance since the first corporations chartered in the U.S. by providing evidence from the Chesapeake and Ohio Canal Company (C&O). The paper also presents information about how the C&O addressed these issues of corporate governance.

## BACKGROUND INFORMATION

On September 2, 1784, George Washington started a tour of the western territories. Washington had large land holdings in western Virginia, and the purpose of his trip was to examine his land holdings, collect some money due him from tenants, and other business dealings. Upon his return to Virginia, Washington wrote a letter to Benjamin Harrison, governor of Virginia, on October 10, 1784. In this letter, he noted that unless the colonies

improved communication and trade with the western territories, the loyalty of the people settling these territories would switch to Spanish New Orleans. Washington suggested in this letter<sup>1</sup> that a method that could be used to improve communications was to improve waterways between the coastal region of the country and the Ohio Valley. Governor Harrison presented Washington's letter to the state legislature during that session. The legislature granted Washington a corporate charter.

The corporation formed was the Potomac Company (PC). Over the next three months, Washington worked to obtain a similar charter from the State of Maryland. The PC was a river improvement company and, as such, removed obstructions from the river and built canals circumventing major falls. The PC had exhausted its finances by 1820 with few improvements to show for the expenditures of time and money. The navigational improvements undertaken by the PC proved to be inadequate for the region and needs of the country.

During the War of 1812, communications and transportation needs became very apparent in the states. The State of New York started construction of the Erie Canal in 1817 [Shaw 1966]. Once again, the Potomac route to the west was seen as a commercial route. In 1823, a new group of individuals obtained a charter from Virginia, Maryland, Pennsylvania, and the federal government to form a new company. The new company, the C&O, absorbed the assets, liabilities, and stockholders of the PC. The goal of the new company was to build an artificial river (canal) from tidewater Potomac to the Ohio River at Pittsburgh. On July 4, 1828, the company broke ground in Georgetown (now part of the District of Columbia) and commenced construction paralleling the north bank of the Potomac River.

Congress appropriated funds for the Army Corps of Engineers to survey the route and prepare an estimate of construction for the canal in the amount of \$22 million. The canal promoters believed that this sum was far too great an amount for the company to raise for construction. The canal promoters secured a new estimate that predicted the canal could be built for \$4.5 million. The canal promoters accepted the lower number and proceeded with construction. Twenty-two years (1828-

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<sup>1</sup>From the sending of this letter, the canal movement in the U.S. was born. Individuals promoting the C&O and the Erie Canals [Shaw, 1966], as well as other canal promoters, quote the letter from Washington to Harrison. The letter presents Washington's fears that without communication and trade, the western territories could become Spanish by virtue of trading with Spanish New Orleans.

1850) and \$18 million later, the company reached Cumberland, Maryland. The distance from Georgetown to Cumberland was 184.5 miles. This distance was less than half the original route planned to the Ohio River. Lack of funds for continued construction and the location of coal fields in the Cumberland area as a source of revenue convinced company management to stop at Cumberland.

Despite the fact that the C&O was never sufficiently profitable to pay off its corporate debt borrowed for construction and repairs, the company was able to survive for over one hundred years (including the predecessor PC). Although the canal did enjoy financial success during the 1870s and early 1880s, it was insufficient to pay off the corporate debt or to provide a return to the stockholders. During this time, the company administrators were successful in waging a political war<sup>2</sup> with the Baltimore and Ohio Railroad (B&O) [Dilts, 1993]. Severe flooding in 1877 and 1889 caused major damage to the canal works. After the 1889 flood, funding was not available to make repairs, and the C&O was forced into receivership.

Subsequently, the B&O emerged as the majority owner of the repair bonds, holding the mortgage on the canal, and assumed control of the company. Funding provided by the B&O allowed the canal to be repaired and returned to service in 1892; however, another flood in 1924 resulted in the canal's permanent closure. In 1938, the federal government purchased the canal assets from the B&O for \$2 million [Sanderlin, 1946], and, in 1971, the canal was designated a national park.

At the time the federal government purchased the C&O canal assets (1938), the available corporate records were also transferred to the government and now reside at the National Archives in the suburbs of Washington. Included among these records were the Board of Director's minute books and the *Minutes of the Proceedings of the Subscribers to the Capital Stock of the Chesapeake and Ohio Canal Company*, referred to in this paper as the stockholder minute books. Financial statements were presented annually to the stockholders of the C&O during the period 1829-1889, with the number of copies produced ranging from 250 to 1,000 annually. However, the annual reports for

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<sup>2</sup>The B&O and the C&O were both politically active. Both companies were attempting to gain favors in the Maryland State Legislature. The companies in their early histories were trying to obtain construction financing while later issues involved other advantages, such as rate changes. (Company toll rates were set by the legislature.)

only five of these years reside in the National Archives. Copies of the printed annual financial statements for all years except 1857, 1869, and 1888 were obtained from six sources (see Appendix 1).

The C&O, while never profitable for the individual investors, was economically valuable for the region it served. Ransom [1964] argued that economic historians have focused on the railroad as the most important factor in American economic growth. He concluded that this emphasis is misguided and that since canal construction in the U.S. predated the railroads, their contribution to American economic growth should be re-evaluated. Ransom further states that canals never constituted an integrated system and that their economic contributions should be evaluated individually.

### ACTIONS BY STOCKHOLDERS TO EFFECT CONTROL

The 1784 charter of the PC required an annual meeting of the stockholders. The charter also included wording that at the annual meeting the “president and directors shall make report, and render distinct and just accounts of all their proceedings, and on finding them fairly and justly stated, the proprietors then present, or a majority of them, shall give a certificate thereof” [Virginia Act, 1784, ch. XLIII]. To accomplish this charter requirement at each annual meeting, the stockholders of the PC selected a committee of stockholders to review the annual report of the company. At the time of the founding of the PC, there were no corporations to emulate. The origin of the concept of using the review committee remains unknown. However, the Middlesex Canal Company also used the stockholders to perform the review function [Roberts, 1938].

The charter of the C&O was almost identical to that of the PC, including the above referenced phrase. In addition to absorbing the stockholders of the PC, the C&O also inherited many PC practices, including the corporate governance structure. The C&O continued to have a committee review the annual report presented by the company president and report back to the stockholders on their findings. A separate sub-committee was created to review (audit) the annual financial statements presented to the stockholders.

At the 1831 annual stockholders meeting, a resolution was passed to create the stockholder review committee at the current meeting to review *next year's* annual report. The resolution also states that the president and directors should have the annual report prepared two weeks prior to the annual meeting



to allow the committee to review the report before the stockholders meeting. After completing the canal to Cumberland, Maryland in 1850, the review process was again modified. A committee of three or four stockholders present at the current stockholders meeting would be selected to review the next year's annual report, replacing the committee/sub-committee structure previously employed. The committee's main focus during these years was the examination of the financial records of the company. Additionally, other committees would be established as the stockholders felt necessary to examine particular issues of interest to the stockholders.<sup>3</sup> The annual review committee reports presented in the stockholder minute books provide insight into the functionality of the company's corporate governance structure.

### WEAKNESSES OF CORPORATE GOVERNANCE

Hart [1995] explained the weaknesses and importance of corporate governance structures. He discussed the five weaknesses in corporate governance structures identified in the introduction and provided a theoretical framework for these weaknesses. The following discussion describes these five weaknesses and how they are illustrated by the C&O in operation.

*The Cost of Agent Contracts:* The costs and complexity of writing a comprehensive agent contract are such that organizations will only write incomplete contracts [Hart, 1995; Shleifer and Vishny 1997]. Shleifer and Vishny describe the incomplete contract issue with regards to the allocation of company funds. They remark that ideally a company would write a contract that specifies exactly how a manager would allocate company funding of projects, but future contingencies are impossible to foresee or describe. Hart [1995] argues that the potential costs of contracts are thinking of every potential eventuality, the cost of negotiating contracts, and the cost of writing the contract so that it is enforceable. In the case of the C&O, it was not possible to think of every possible contingency since its stockholders were entering an unknown area. The C&O did not even have a written contract with the corporate president. Company presidents were elected annually at the stockholders meetings, so there were no negotiations. The method of enforcing the stockholders' will on the company presidents was by replacing them at the next stock-

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<sup>3</sup> An example is the committee established in 1869 to investigate the option of turning over control of the company to the bondholders.

holders meeting.

The stockholders imposed controls on the company management by passing stockholder resolutions. As illustrated by the changes occurring during the tenure of Arthur Gorman's presidency. Gorman was president of the C&O from 1873 to 1883. During his tenure, a corporate bondholder, Daniel K. Stewart, brought a lawsuit against the company for non-payment of bond interest. In this 1881 lawsuit [Stewart v. Chesapeake and Ohio Canal and others], the plaintiff alleged corporate mismanagement as the reason for the non-payment. The court, while not agreeing to place the company into receivership as requested by the plaintiff, did agree that the company was spending extravagantly on travel and entertainment expenses. In 1879, the stockholders had passed a resolution limiting the travel reimbursement expenses of the officers and directors of the company. Following the lawsuit, the stockholders further limited expenditures at the 1881 stockholder meeting. The stockholders passed a resolution that all salaries would be fixed by them and that the company would pay no expenses for travel or hotel bills [C&O, 1856-1889, p. 332].

Hart [1995, p. 680] further states that the "governance structure can be seen as a mechanism for making decisions that have not been specified in the initial contract." While the stockholder review committee did not identify the issue of excessive travel and entertainment expenses, the stockholders of the C&O acted to correct the issue of travel and entertainment expenses by setting limits on the amount of expenditure allowable.

*Individual Stockholders are too Numerous to Effect Individual Control:* The authors of the C&O charter attempted to protect small investors by including voting restrictions. These restrictions were one vote per share for the first ten shares held and one vote per every five shares above ten. It was felt that at \$100 par, no one individual or organization would be able to gain control of the enterprise. However, in 1836, the State of Maryland purchased enough shares of stock to control over 50% of the voting rights [Sanderlin, 1946]. Thereafter, each change in the political party controlling the Maryland statehouse brought a change in the company president and the Board of Directors.

In 1825, Maryland created a Board of Public Works. The original purpose of the board was to oversee state investments in corporations and to locate additional opportunities for investment as the state set out to provide income for governmental operations without direct taxation. In 1850, Maryland created a

new Board of Public Works whose job was simply to represent the state at stockholder meetings, not to exercise direct managerial control over its various investments [Wilner, 1984].

In 1850, Maryland held a constitutional convention, and the oversight of the various state corporate investments was an area of significant debate. Mr. Thomas, the representative from Frederick County, commented that there was a significant difference between Maryland and other states with respect to its canal investments. The difference was that the internal improvements companies in other states were owned, built, and operated by the states as non-profit entities. Canals in New York, Pennsylvania, and Ohio were all public enterprises. Mr. Smith of Allegheny County said that the state had no duty other than to attend the annual meeting and cast the state's vote. He further said that the state could have no supervision over the works as the charter gives entire control to the president and directors of the company [Wilner, 1984]. The Maryland legislature intended the company to be independently controlled, but the intent of the state legislature did not prevent the Board of Public Works from making political appointments to the company presidency. In spite of concerns about management weakness caused by political appointments, the C&O continued operating independently until 1889, when it was finally placed into receivership.

In 1841, the stockholders, recognizing the costs of continuous changes in company management, passed a resolution that the C&O was a national work and should not become a political engine, fluctuating with the vagaries of Maryland's statehouse politics [C&O, 1836-1841, p. 414]. By the 1870s, the offices of the company had become political perks bestowed by the political party in charge. Arthur Gorman was appointed president 1873 as a reward for services rendered the Democratic Party [Sanderlin, 1947]. In the year Gorman was nominated as president of the company, Maryland cast its votes for Gorman with all other stockholder votes against. Hart [1995] explains that when company management is sufficiently bad, dissident shareholders can initiate a proxy fight to remove the board, but that this course of action is usually ineffective. In the case of the C&O, it was impossible for the minority stockholders to bring about change.

The minority stockholders also made attempts to gain more influence in the company. The individual representing the stock held by the U.S. government presented a motion to change the method for electing members of the Board of Directors at the June 1879 annual meeting. The proposal was for the Board of Directors to consist of three members elected by Maryland and

two members elected by the minority stockholders. The resolution was defeated because Maryland voted against the resolution although all other stockholders voted for it.

Corporate bondholders also recognized the limitations occasioned by the political nature of the company. In 1881, the bondholders presented a petition at the stockholders meeting noting that they had not received any payment since December 1876. The petition further explained that if the company were run as a business and free of political influences, the company would have been able to pay the debt [C&O, 1856-1889, pp. 336-337].

O'Sullivan [2000, p. 410], commenting on innovative organizations and corporate governance, argued that "a system of corporate governance supports innovation by generating three conditions – financial commitment, organizational integration and insider control." Financial commitment is defined as an institution's resolve to continue financial support of innovation. Organizational integration is the maintenance of human capital. Once an innovative process has started, the loss of human capital will cost the organization additional resources. Insider control requires that decision makers are involved in the learning/innovation process. The stockholders of the C&O were upset by the problems of continuously changing company officers. Subsequent to Maryland gaining control of the company, the minority stockholders were unable to exert enough control to force a change in policy. At the April 1841 stockholders meeting, the review committee made the following statement to protest the turnover of officers as a function of Maryland politics [C&O, 1836-1841, pp. 417-418]:

The committee, from evidence given them, are satisfied that very valuable and faithful officers have been removed from the service of the company, and, in some cases, men not competent to perform the duties required have been appointed in their places, to the serious injury of the best interest of the company.

Some of these removals have been as admitted by the president's report to the governor of Maryland, for political opinions sake which, as your committee conceive, no direct interest of the company either required or demanded.

In addition to these views already presented, there are other matters which might be adverted to if the time allowed for this report would permit, which go strongly to induce this committee to believe that the affairs of the canal company have been most unfortunately managed.

The stockholders of the C&O were numerous with large blocks of stock held by the U.S. government, the State of Virginia, and the cities of Alexandria and Georgetown. Even with these large blocks of stock, the holders working together were still unable to affect changes in corporate management when it was deemed necessary.

*Large Stockholders:* In the presence of large shareholders, agency problems may be reduced but not eliminated. Shareholders with over 10% of the outstanding stock of a company have more incentive to monitor company management. A substantial minority shareholder has enough voting control to put pressure on or even remove management [Shleifer and Vishny, 1997]. A current example would be the California retirement system (CALPERS) that picks a few companies each year to contact about corporate changes. Unfortunately, CALPERS is the exception not the rule. Most large-block holders are free riders and do not monitor company management.

Large shareholders will under-perform the monitoring and intervention activities and may use their voting power to improve their own position at the expense of the other shareholders [Hart, 1995; Shleifer and Vishny, 1997]. One reason identified by Hart for the under-performance of large stockholders includes their using their voting power to improve their own position at the expense of the company. Also, large stockholders can be persuaded not to confront management in exchange for a promise to have their shares repurchased at a premium (green-mail). Hart mentioned one additional problem with large stockholders that more clearly relates to the C&O. The problem is that a large institutional shareholder must hire a representative to act on its behalf. As stated above, Maryland controlled more than 50% of the stockholder voting rights. However, aside from selecting company management each year, the state maintained a *laissez faire* attitude toward the operations of the company.

Information regarding a large stockholder working for reasons of self-interest was also illustrated by the C&O. In 1841, the Maryland legislature passed a bill to provide additional funding requested by the company for completion of the canal. Before the funding was made available to the company, the stockholders had to ratify the provisions of the bill. When the resolution was presented for a vote at the stockholders meeting, Maryland voted for the resolution with all other stockholders against. The bill thus passed included a clause that the other stockholders found objectionable. This section contained wording requesting

that the state's attorney general begin proceedings against the company for failure to pay interest on previously loaned money. Since the previous loan included a mortgage of corporate assets, the stockholders were afraid that the state would foreclose on the company and leave them with nothing. The state ended up lending the company the money without taking legal action to collect amounts past due. Maryland used its voting power to further its own agenda. Politicians of the state also used the company to further personal political ambitions and agendas as indicated in the previous section of the paper.

Maryland held ownership control but did not exert it day-to-day. Rather, it limited its role to appointing members of the Board of Directors each year. At a constitutional convention, the delegates considered taking operational control of the company, but in the discussion of this issue, the delegates indicated that this was beyond the scope of state government [Wilner, 1984].

*Limitations of the Corporate Board of Directors:* Stockholders elect a board of directors to monitor corporate management. In his discussion of a board of directors, Hart [1995] lists four shortcomings of the board as a monitoring device. The first limitation is that some board members are corporate officers and that self-monitoring is not effective. The C&O did not have corporate officers as board members so there is no illustrative evidence of this issue present. The second limitation is that board members may not have a financial interest in the company and therefore have little to gain by the success of the company. In the beginning, the C&O board was populated by stockholders. All of these individuals had a vested financial interest in the success of the company. After Maryland acquired voting control in 1836, board members were selected by the state for more political reasons. Most of these individuals had no financial interest in the company. The third limitation is that board members are busy persons and have little time for company business affairs. In the 1800s when travel was more time consuming and difficult than today, this problem was a greater issue. The board members were paid a salary and travel expenses (limited in 1879), but these were political gentlemen more interested in political than financial gains. The last limitation is that directors may owe their positions to company management and may be more loyal to management than to the stockholders they are to protect. In the case of the C&O, the directors and the company president were political appointees, selected as much for their political party association as for their business savvy. These individu-



als owed their allegiance to the president far more than to the stockholders.

In the second half of the 19th century, the members of the C&O Board of Directors were all political appointees. None of the board members held company stock and, thus, had nothing to gain personally from company success. The only gain they would receive was political. All of these issues, in the case of the C&O, led to the company having a Board of Directors with little to gain by the company's success. It is apparent from archival evidence that President Gorman used the company to further his own political future. Gorman hired persons and chose contractors to gain favor with the individuals he needed in the future to reach higher political office [Lambert, 1953]. After eight years as president of the C&O, Gorman was elected to the U.S. Senate, representing the State of Maryland. The Board of Directors owed their allegiance to the political party more than to the C&O. For this reason, one could conclude that the board did not monitor the actions of the company president as closely as perhaps they should have. Without close monitoring by the board of directors, company management is free to pursue its own goals. The following section provides a discussion of this topic and the consequences that resulted in the case of the C&O.

*Potential that Management will Pursue its Own Goals:* As stated earlier, President Gorman used his office to further his political ambitions. Further evidence is demonstrated by the fact that many board meetings during his tenure were held in Baltimore, the home of the B&O, the C&O's chief competitor. The B&O was a rival for funding, route, and customers. Gorman spent company money on travel, hotels, and entertainment for himself and C&O board members to have its board meetings in Baltimore. Gorman was not a Baltimorean, the C&O offices were in Annapolis, and the City of Baltimore and its residents provided little, if any, support for the canal. However, Baltimore was the center of political power in Maryland.

Existing evidence indicates that Gorman used the C&O to further his personal ambitions. In 1880, the C&O was sued by a holder of mortgage bonds. The lawsuit [1881] alleged that Gorman was using his position as president to further his political ambition at the expense of the bondholders. The suit alleged that Gorman had political agents on the company payroll and employed numerous "worthless" persons to further his political ambitions [Lambert, 1953].

The corporate governance issues presented by Hart [1995]



existed in a 19th century corporation. C&O stockholders identified and addressed these corporate governance issues. It is manifestly clear that agency problem existed.

Hart argued that in the presence of agency problems and incomplete contracts, corporate governance matters greatly. Therefore corporate governance would be vital at the C&O since the company did not have a contract with the corporate president and severe agency problems existed. The next section of this paper discusses how the C&O shareholders used a stockholder review committee to force corporate officers and directors to address the problems presented by the limitations on corporate governance.

### STOCKHOLDER AUDIT

As mentioned previously, the C&O annually created a committee of stockholders to review the annual report of the president and directors. The Middlesex Canal of Massachusetts<sup>4</sup> also used stockholders to perform the audit function [Kistler, 1980]. In her article on the Middlesex Canal, Kistler revealed that the stockholders of that company appeared to have reviewed all transactions. However, she also noted that the review performed in 1830 was completed in only one week and commented that it is doubtful that much work could have been performed in such a short period of time, leaving doubt as to the thoroughness of the audit. The archive of the Middlesex Canal Company does not provide any additional information about these audit efforts.

The C&O review committee left more detailed information regarding the thoroughness of its audit efforts. The C&O committee recognized the limitations of auditing. In 1838, the committee reviewing the annual report made the statement that it could not review all transactions in the time period allowed, but that this did not seem necessary since the board had approved all requisitions for payment. Therefore, the committee reviewed the requisitions issued for disbursements, examined the books of the treasurer and company clerk, and found these to be satisfactory [C&O, 1836-1841, pp. 176-177].

For the year 1839, the committee, in making comments about estimated figures on the financial statements, made this further observation [C&O, 1836-1841, p. 291]:

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<sup>4</sup>The Middlesex Canal was a contemporary company of the C&O. The Middlesex was founded in 1793 and had a similar corporate governance structure.

From these causes the statements may be found to require some variation but although not exact, the sub-committee are induced to believe, that they are at least proximately correct in the available basis that they exhibit for the demands of the current year.

This limited endorsement did not keep the sub-committee from admonishing the company officers when irregularities were encountered.

Over the life of the C&O, the stockholders reviewing the company finances made numerous observations and recommendations. The first recommendations for change came in 1834, when the review committee requested four changes in the manner in which the company kept records and reported to the stockholders. The first request was that requisitions for salaries and services state the time period for which the recipient was receiving pay and the capacity in which the person had served the company. The second request was that changes be made regarding the presentation of financial statements. Previously, for instance, the treasurer's report consisted of one statement showing total receipts and expenditures to date for the company. The recommendation of the committee was to present a separate column for the current-year information. The review committee also requested that expenses for repairs be accounted for and reported separately from expenses for canal construction. Finally, it requested that a statement showing the volume of goods transported on the canal be presented [C&O, 1828-1835, pp. 361-362].

In 1839, the committee observed that the clerk's statement showed other receipts in the amount of \$11,175.58 arising from such things as tolls, rents, etc. collected by the several superintendents that had been subsequently used and accounted for in the service of the company. Consequently, these receipts had not passed through the books of the treasurer [C&O, 1836-1841, p. 289]. The review committee asked that this process be terminated and that all receipts and expenditures be passed through (entered into) the treasurer's books. The committee commented that the practice of allowing superintendents to spend money without an accounting of the money in the company records "seems irregular and inconvenient."

Two stockholders meetings were held in 1841. At the April meeting, the stockholder review committee admonished the company, claiming that the statement of debts and credits of the company presented by the president to the stockholders was

incorrect and could not be relied upon. The committee then observed that it was unable to present any satisfactory view on the financial statements [C&O, 1836-1841, pp. 415-416]. The committee further claimed that the company bylaws required that the company treasurer present financial reports at each monthly board meeting and that this reporting had not been done since the current treasurer had been in office. The committee made several statements regarding individual transactions such as the sale of bonds issued by Maryland for stock subscriptions. The committee argued that the manner in which the sale was handled cost the company a substantial amount of money. As a result, the stockholders removed the company president, treasurer, and directors from office and replaced them with a new slate of corporate officers.

At the August 1841 stockholders meeting, the committee, after further review of the company records, presented additional problems with the records. The committee made the observation that several irregularities in vouchers were traced to a disregard of company policy by the former company president. The committee also stated that during the five months leading up to the change in officers, no accounting entries had been entered in the company books.

In 1845, the review committee made the following observation about the company's method of bookkeeping and requested that it be changed [C&O, 1842-1846, pp. 488-489]:

They find that under the directions given to the treasurer, and in accordance with the custom, which has heretofore prevailed in the company, payments have been made for more than one purpose on the same warrant and the whole payment charged under the head of the principal item for which the warrant was drawn.

In consequence of this circumstance the abstract of receipts into and payments from the treasury instead of exhibiting the actual condition of the affairs of the company in its items as well as in its final balances, only show the amount charged in the treasurer's books under each head in the abstract instead of the whole amount of expenses properly chargeable under that head. Thus under the head of pay of lockkeepers, it appears by abstract that the amount paid in 1845 was \$627, whereas by reference to the accounts of the company it is found that the whole amount properly chargeable under this head is \$7,801.00.

In 1855, the corporate office staff was fired and replaced with political appointees. The 1856 review committee disagreed

with these organizational changes and stated so in their report to the stockholders. The review committee further averred in their report that the office staffers who had been fired were competent individuals and that their replacements were incompetent. In 1856, a new slate of corporate officers had been elected the prior year. The new corporate officers reinstated the former office staff and organization. The 1857 review committee commented that they were grateful to see the former organization of corporate officers restored.

After the canal construction was completed to Cumberland, Maryland in 1850, the review committee was less involved in reviewing the actions of the president and directors and more concerned with the review of the company finances. Subsequent to 1857, the review committee made no further admonishing remarks about the company operations or finances.<sup>5</sup>

*Political Problems:* As previously noted, the C&O became a politically controlled company. In this political environment, there existed the potential for political favors to override the stockholder reviews. In 1829, the stockholders established the process for the selection of committee members. The stockholder resolution stated that the review committee would be staffed with a representative from Virginia, Maryland, the U.S., and the cities of Alexandria, Washington, and Georgetown, each of which had purchased large blocks of stock in the company. The balance of the committee would include members selected from other stockholders in attendance.

This stockholder audit practice continued until the company ceased to exist in 1889. During the last 30 years of the company's existence, no review committee reported any error or misstatement.

In the 1881 bondholder lawsuit, the verdict provided stated that there were excessive expenditures for travel and entertainment but that the company should not be placed into receivership. For these reasons, one is left to assume that the review committee examined transactions to insure that the transactions were correctly documented. It appears that the committee did not consider the transactions to determine the legitimacy of the expenses. A statement made by the review committee in 1837 further illustrated this point. The committee reported that the magnitude of expenses paid and charged to the contingent fund

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<sup>5</sup> An examination by the authors of the review committee reports subsequent to 1857 found no additional admonishing comment about the company.

(miscellaneous expense) far exceeded that of the previous year. After presenting the transactions that represented the greatest amount of these expenses, the committee made the comment that they were not charged with testing the legitimacy of the payments and, therefore, had no opinion to render regarding the necessity of the payments made. They further commented that the payments were authorized by the board [C&O, 1836-1841, p. 130]. This denial illustrates the shortcoming of the C&O's review committee's practice.

The practices of the review committee had the shortcoming of not identifying problems relating to the magnitude of expenditures, but the committees did reveal and recommend changes in internal control and company reporting practices. The individuals performing these financial reviews were not trained auditors, but they were still able to recognize problems and recommend changes which the corporate officers placed into service.

### CORPORATE GOVERNANCE EVOLUTION

The model of corporate governance that existed at C&O was similar to other corporations during that era and beyond. Theoretically over time, capital-market investors required a reasonable accounting for the use of their capital. For example, in early 19th century development companies, such as the PC, individual investors were directly involved in both the supply of capital and in the management of companies. Corporate governance techniques for several of these early companies included assurance in the charter of the publication of an annual report and the agreement among selected shareholders to serve as members of an audit committee [Russ et al., 2006].

Railroads and later larger corporate entities drew from an expanding capital market made possible by communication improvements, such as the telegraph which linked cities and capital investors. Thus, individual and merchants served as "bankers" of investment funds. Interstate investment required the use of legal vehicles such as "trusts" to assure that accountabilities and "reasonable" control of information could be achieved. In the last quarter of the 19th century, industrial expansion, abetted by the creation of corporate holding companies and the rise of investment banking houses such as Morgan and Schiff, produced a greater concentration of funds and greater public concern regarding the management of those funds.

In states such as Massachusetts, the response was to form

public railroad commissions, headed by leading citizens such as Charles Frances Adams of the famous presidential family. Adams and his brother Henry also introduced public commentary by writing about the abuses of corporate railroad management, such as their essay on the Erie Railroad and the alleged manipulations of this *laissez faire* era attributed to Gould, Fisk, and Drew. Public concerns were addressed, in part, by the notion of “disclosure” being required of transportation companies which operated interstate. The Massachusetts Commission, known as the Sunshine Commission, became the model for the Interstate Commerce Commission, established in 1887, which required the filing of information about the operations of carriers.

A new accounting profession launched with the passage of the CPA designation in 1896 spread across the country in the next three decades. Disclosure, exemplified in the reports of U.S. Steel, sought to address public concern, and journalists paid extensive attention to corporate abuse. Collectively, these efforts were the response to public and private concerns that capital providers be given a reasonable accounting about the use of their capital.

The notion of boards of directors serving as the ultimate manager of corporations and representing individual owners, community members, merchant bankers, and capital providers while countering the power of professional management, became the mode as corporations in transportation and industry continued to grow in economic importance.

Chandler [1977] documents the rise of a professional management class in the early 20th century, describing how their power to allocate resources constituted a “visible hand” that often, if not effectively, replaced Smith’s “invisible hand.” With this era came a loss of proprietary involvement in major corporations and a rise of contractual management and investor relationships which can be called the “agency era” as documented by Berle and Means [1932].

Berle and Means’ work began a modern era of public concern over the relationships among capital providers, proprietors, and managers, well documented in the writings of Shleifer and Vishny [1997]. From the beginning of the 19th century through the rise of agency governance concerns, a core theoretical concern remained to provide for a reasonable accounting for the use of their capital. During this time period, the corporate governance structure remained essentially the same. The greatest change over the 200 years of history was the increasing distance between the stockholders and management.

## SARBANES OXLEY

In 2002, Congress passed the Sarbanes-Oxley Act (SOX) in response to corporate failures including, most prominently, Enron and WorldCom. SOX was designed to, among other things, strengthen corporate governance. While SOX has made some statutory changes to our corporate governance system and strengthened the board of directors, issues still remain. SOX does not eliminate the agency problem of corporate management, but it does make corporate management criminally liable for corporate reporting. Individual stockholders are still unable to exert control over the companies that they own, while large stockholders are not required to monitor the companies in which they hold stock. SOX has made improvements, but there is still much room for corporate governance issues to arise.

It will take time before it can be known if SOX has had an effect on corporate governance today. In the case of the C&O, there are some areas where SOX could have made a difference. In the later years of the company, the stockholder review committee did the job and made no comments. The largest corporate governance failure at the C&O appears to have been during the 1870s when President Gorman ran the company to feather his own nest as much as to enhance the well-being of the company. Gorman was elected to the U.S. Senate while serving as president of the company. The corporate bondholders sued the company in 1881, alleging that the company was being used to further his political ambitions. The corporate responsibility section of SOX requires company management to be held responsible for the company's financial statements. No one questioned the financial statements of the C&O; however, the bondholders did question the financial management of the company. If SOX had been in place in the 1870s, it could have encouraged the directors to a greater diligence in policing the expenditures of President Gorman.

## CONCLUDING COMMENTS

Corporate governance as it existed in the early 19th century has not changed significantly from what exists today. While the distance between stockholders and management has increased over time, corporations have always been faced with managing absentee ownership and the related concerns surrounding the provision of proper assurance and disclosure.

This paper provides support for the theoretical framework of corporate governance presented by Hart [1995] by presenting



evidence from a 19th century company. In this regard, the issues presented by Hart are not considered new, but were manifested and were acted upon in an early corporation. In this paper, a “modern” theory was applied to a 19th century company. A theory of this nature, or any other theory, should stand the tests of time, tested by both contemporary and historical data. If the concept stands up to the tests of time, then it gains in acceptance; when it fails the tests of time, it loses acceptance. Are matters relating to 19th governance comparable to the modern era? Theoretically, they are the same issues. The first corporations struggled with the idea of absentee ownership as corporations do today. The example used in this paper is of a company struggling to develop a corporate governance system that would be taken for granted today. The founders of this company did not have a roadmap to follow in starting the corporation. The PC/C&O was one of the first American corporations.

In summary, Hart states that agent contracts cannot be comprehensively written. The C&O did not have an employment contract with the president of the company. The stockholders controlled the president’s actions by resolutions made at the annual stockholders meetings. As new issues arose, the stockholders adopted new resolutions to restrict or control the president.

Second, Hart felt that when individual stockholders are too numerous, a failure to exert control over the actions of corporate officers exists. In the late 1700s, the PC/C&O established a corporate governance structure similar in many ways to the structure used today. One difference between the C&O’s and modern structures is the use of independent auditors to review the finances of the company today. The C&O used a committee consisting of stockholders to perform the audit function and to review the actions of the president and Board of Directors.

Third, Hart contended that large stockholders will “free ride” instead of actively participate in the monitoring of corporate management. In the case of the C&O’s largest stockholder, Maryland, participation in corporate management was no greater than the participation of other stockholders, even with Maryland’s much larger investment to protect. The state not only failed to monitor at a level associated with the investment at risk but allowed company management to pursue political gains at the company’s expense. President Gorman was accused of using the company to further his own political career. In the lawsuit brought by a bondholder alleging mismanagement, the court did not find mismanagement but found only that the company was spending unnecessary money. The court did not give

control to the bondholders but did appoint a court monitor to review future company spending.

Next, Hart [1995] presented four limitations of a board of directors. This paper provides support for three of the four limitations: board members may not have a financial interest in the company, board members have little time for company affairs, and directors may owe their position to company management. After Maryland gained controlling interest of the company, the C&O Boards of Directors were selected based on political party affiliation rather than for business reasons. Each subsequent change in the majority political party in the statehouse resulted in a new president and Board of Directors. For this reason, the board members were not stockholders and had no financial interest in the success of the company. The board was more loyal to the company president (a fellow political appointee) than to the company stockholders. The actions of the board, while not explored in this paper, were probably more politically than profit motivated for the reasons set forth above.

The last corporate governance issue presented by Hart is that the potential exists for managers to pursue their own interest at the expense of the company. In his paper describing Arthur Gorman as a political party boss, Sanderlin [1947] observed that Gorman used his position as president of the C&O for his own political gain. The 1881 bondholder petition provides additional support for the case that the presidents of the C&O used the office for political purposes. As stated, it is felt that Gorman used his position as the company president to assist in his election to the U.S. Senate [Sanderlin 1947].

Shleifer and Vishny [1997] write that most advanced market economies have reasonably solved the problem of corporate governance, but this does not mean that the current systems of corporate governance cannot be improved. The issues raised by Hart indicate weaknesses in the corporate governance structure used today. Examples of today's corporate failures provide evidence that improvements could and should be made. In the U.S., more requirements are being made for outside directors to strengthen corporate governance. Maybe we can learn from history and find additional solutions to corporate governance problems that have been lost in time. In the U.S., the distance between managers and providers of capital increases the agency problem [Shleifer and Vishny, 1997]. Managers have greater discretionary power over the allocation of corporate resources than might otherwise be the case if owners were actively involved in corporate affairs.

In the case of the C&O, the stockholder review committee gave the providers of capital, the stockholders, a more active involvement in corporate management. Since companies that draw on the experience of the stockholders will be more efficient [O'Sullivan 2000], the model of a stockholder review committee utilized by the C&O might well be utilized in corporate governance today.

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## APPENDIX 1

**List and Location of Annual Reports for the Chesapeake  
and Ohio Canal Company for the Period of this Study:  
1829-1889**

Number	Year	Location	Number	Year	Location
1	1829*	Library of VA	31	1859	UVA
2	1830	Library of VA	32	1860	UVA
3	1831	Library of VA	33	1861	MD Law Library
4	1832	Library of VA	34	1862	MD Law Library
5	1833	Library of VA	35	1863	MD Law Library
6	1834	Library of VA	36	1864	UVA
7	1835	Library of VA	37	1865	MD Law Library
8	1836	Library of VA	38	1866	NARA
9	1837	Library of VA	39	1867	UVA
10	1838	Library of VA	40	1868	UVA
11	1839	Library of VA	41	1869	Report not located
12	1840	MD Law Library	42	1870	U Mich
13	1841	MD Law Library	43	1871	MD Law Library
14	1842	MD Law Library	44	1872	MD Law Library
15	1843	Library of VA	45	1873	MD Law Library
16	1844	MD Law Library	46	1874	MD Law Library
17	1845	MD Law Library	47	1875	MD Law Library
18	1846	MD Law Library	48	1876	Madison
19	1847	MD Law Library	49	1877	MD Law Library
20	1848	MD Law Library	50	1878	Madison
21	1849	MD Law Library	51	1879	MD Law Library
22	1850	MD Law Library	52	1880	Madison
23	1851	MD Law Library	53	1881	Madison
24	1852	MD Law Library	54	1882	Madison
25	1853	MD Law Library	55	1883	Madison
26	1854	UVA	56	1884	Madison
27	1855	MD Law Library	57	1885	Madison
28	1856	UVA	58	1886	MD Law Library
29	1857	Report not located	59	1887	Madison
30	1858	UVA	60	1888	Report not located
			61	1889	NARA

NARA: National Archives and Records Administration, College Park, Maryland

MD Law Library: Maryland State Law Library, Annapolis, Maryland

Library of VA: The Library of Virginia, Richmond Virginia

UVA: The University of Virginia Library

Madison: Wisconsin Historical Society

U Mich: University of Michigan

\* The C&O broke ground in 1828, and the first annual report was presented at the end of the first year of operations in 1829.



*Accounting Historians Journal*  
Vol. 36, No. 2  
December 2009  
pp. 139-179

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## **20TH CENTURY PUBLICATIONS ON COST ACCOUNTING BY SPANISH AUTHORS PREVIOUS TO THE STANDARDIZATION ACT (1900-1978)**

*Abstract:* This paper aims to describe and explain the beginning and evolution of cost accounting in Spain through the examination of accounting texts. In this evolution, three periods are distinguished: the late 19th century, the first half of the 20th century, and 1951-1978. In 1978, the official standardization of Spanish cost accounting occurred. Cost accounting first appeared in Spanish texts at the start of the 20th century. However, in 19th century accounting treatises can be found references to some aspects of cost accounting to which the paper refers. The traditional orientation of authors in the second period clearly reflects a monistic recording pattern, i.e., that cost accounting in combination with general accounting forms a homogeneous whole, with full-cost allocation on the basis of historical costs. The small differences found among these authors relate to a large extent to the fixed-costs allocation. This period corresponds to the introduction into Spain of the Central European school of accounting thought represented by Pedersen, Schmalenbach, Palle Hansen, and, above all, by Schneider. This influence intensified from 1951 onward. In the second half of the 20th century, German thought shared influence with American thought represented in the works of Kester, Horngren, Lang, Lawrence, Neuner, etc. The French Accounting Plan (General Chart of Accounts), published in 1957, also had an obvious influence on Spanish accounting scholars of this time. This influence is clearly shown in the Spanish standardization of cost accounting

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**Acknowledgments:** The authors want to express their deep gratitude toward Dick Fleischman for the special care and interest put into the editing of this paper. This study has been undertaken with the financial support of the Spanish National R+D+I Plan through the research project SEJ2007-62215/ECON.



published in 1978 as part of the first *Plan General de Contabilidad* (General Accounting Plan) passed in 1973.

## INTRODUCTION

After fixing the aims of every piece of research, either historical or current affairs, the researcher has to begin by delimiting the period under consideration. In our case, the focus is on the development of academic cost accounting. It is not our purpose to analyze how cost accounting thought evolved by studying company cases [e.g., Musgrave, 1976; Amat 1991, 1992; Fleischman and Parker, 1992; Bhimani, 1993; Amat et al., 1994; Carmona 2006], but to study the academic evolution of the subject. That is why the methodology of the paper focuses on an examination of textbooks published in Spain.

Due to the scarcity of material on cost accounting authored by Spanish researchers prior to the 20th century, the starting point of this study is the beginning of that century. Some attention has been accorded to earlier authors as an introduction to the subject. The end point is 1978, the year in which official Spanish cost accounting standardization was promulgated. This standardization was not particularly relevant from a practical point of view for firms but was quite significant for academicians.

The primary source material for the paper came mainly from texts housed in the Spanish *Biblioteca Nacional* (National Library),<sup>1</sup> as well as those in the Schools of Commerce.<sup>2</sup> The *Departamento de Contabilidad y Gestión* (Accounting and Management Department) and the library of the *Facultad de Económicas y Empresariales* (Faculty of Economics and Business Administration), both at the University of Málaga, and the paper *Accounting Publications and Research in Spain: First Half*

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<sup>1</sup>The Biblioteca Nacional is Spain's main library and capstone of its library system. As the national library, it is the center responsible for the preservation, cataloguing, and dissemination of Spanish documental wealth. All the national bibliographical production can be found in the library and is available to the rest of the library system, researchers, and cultural or educational institutions. It was founded by Philip the Fifth in 1712 as "Biblioteca Pública de Palacio" (Royal Palace's Public Library) by royal appointment, and was succeeded by the current Depósito Legal (legal depository), founded in 1957, where printers and publishers were required to deposit a copy of every book or printed matter of any kind published in Spain. In 1836, the library ceased being royal property, becoming part of the Interior Ministry, under its current name, "Biblioteca Nacional."

<sup>2</sup>These were the only educational institutions in charge of accounting studies until that duty was entrusted to universities in the second half of the 20th century.

of the 20th Century [Carrasco et al., 2004, pp. 40-58] have also provided great support to the project.

Nineteenth century antecedents were found by means of a bibliographical search for every author's first work in which there was reference to accounting applied to specific activities, to special accounting, or to accounting used by factories and industries. This breadth was necessary because the term "cost accounting" had not yet been coined. Publication date was the criterion used to sort the authors' lists into the three identified time periods. On this basis, some authors are included in the section devoted to the 19th century if their contribution to cost accounting was contained in a work published in that century, even if its subsequent editions appeared in the 20th century. The cost accounting contributions of most 19th century authors lack particular relevance as anticipated. However, some contributions by these authors to financial accounting do have some substance, as shown in Carrasco et al. [2004, pp. 40-58].

Subsequently, the authors who straddle the two centuries but whose contributions to cost accounting appeared in works published in the 20th century are studied. It is here that the first references to "cost accounting" were introduced. Some of these authors had already published works on financial accounting in the previous century. Most of the earliest contributions to cost accounting lacked in scientific ambition and were limited to passages in textbooks used at Commerce Schools.

The traditional orientation of authors belonging to the first half of the 20th century follows a monistic recording pattern in which cost accounting is integrated into general accounting to form a homogeneous whole, with full-cost allocations made on the basis of historical cost. The differences found among authors pertain to a large extent to the allocation of fixed costs. The cost price determined the sale price once the desired rate of profit was added.

The first half of the 20th century corresponds to the introduction into Spain of the Central European school of accounting thought represented by Pedersen, Schmalenbach, Palle Hansen, and, above all, Schneider. Here, the cost accounting contributions take on a much greater relevance, influenced as they were to a great extent by the aforementioned school of thought. In this context, the publication and dissemination of the book *Industrielles Rechnungswesen: Grundlagen und Grundfragen* (Industrial Accounting: Fundamentals and Main Problems) by Erich Schneider, translated into Spanish in 1949 under the title *Contabilidad Industrial* (Industrial Accounting),

is one of the most important landmarks of the history and evolution of cost accounting in the country. The first version of this work was published in Copenhagen in 1939, but in German, under the title *Einführung in die Grundfragen des industriellen Rechnungswesens* (Introduction to the Main Problems of Industrial Accounting). Six years later, in 1945, the Danish edition was published, also in Copenhagen. It was a considerably improved edition, with the title *Industrielt regnskabsvæsen; en indledning til grundproblemerne* (Industrial Accounting: An Introduction to Fundamental Problems). This Danish version was the one first translated into Spanish. In 1954, once Schneider had returned to his chair at the University of Kiel, the work was republished in German under its definitive title. This new edition, reflecting substantial improvements over the Danish edition, was also translated into Spanish and published in 1960 under the complete title: *Contabilidad industrial: fundamentos y principales problemas* (Industrial Accounting: Fundamentals and Main Problems). The distribution of this work in Spain actually started at this point. A few years before, in 1952, the work by Hans Winding Pedersen, *Omkostninger og Prispolitik* (Costs and Price Policy), had been translated into Spanish and published in Madrid under the same title, *Los costes y la Política de precios*. The books by both authors, Pedersen and Schneider, changed significantly the nature of accounting in Spain.

From the 1950s onward, the first references to the German thought approaches appeared. Numerous citations from Pedersen and Schneider show that their theories permeated quickly into the Spanish academic milieu. Spanish authors, e.g., Goxens [1957], Fernandez Pirla [1957], Carrascoso [1965], Dominguez and Velasco [1969], and others, spread these ideas through their works aimed at both university teachers and students, as well as accounting professionals.

The dissemination of the German school of thought in general and that of Schneider in particular caused a radical new direction in Spanish cost accounting. Up to then, Spanish cost accounting theory was clearly unified. From that moment, two spheres, administrative and technical, began to be distinguished in the company. The two spheres gave rise to two corresponding areas, the external and the internal, with their respective accounting schemes, their own calculation methods, their specific accounting recording, and other novelties. Because of that, the dissemination of German accounting thought provoked in Spain, in our opinion, a real paradigm shift in accounting in general and in cost accounting in particular.

The accounting approach that underlies Schneider's work provides great theoretical magnitude. Its rational basis, of great practical usefulness, turns cost accounting, up to then considered a part of financial accounting, into an autonomous tool of substantive importance to enhance the effectiveness and rationality of management. In this way, a work that, according to its author, was only intended to be a textbook for students turned out to be an indispensable work for experts and for all who wanted to pursue cost accounting in depth.

Current cost accounting in Spain has taken shape from the 1950s forward under the influence of the Central European and American schools of thought. The spreading of Schneider's [1949], Pedersen's [1952] and Palle Hansen's [1957] works, together with the influence of American thought (e.g., the work of Kester, Horngren, Lang, Lawrence, Neuner, and others), the introduction of direct costing, and the publication of the French Accounting Plan (General Chart of Accounts) in 1957, had pronounced repercussions among Spanish accounting scholars of the second half of the 20th century. These influences are clearly reflected by the standardization of cost accounting, published in 1978 as group nine "*Contabilidad Analítica*" (Analytical Cost Accounting), a part of the first *Plan General de Contabilidad* (General Accounting Plan) passed in 1973.

The paper is organized into this introduction and three sections, one for each period studied (cost accounting antecedents in 19th century Spain; cost accounting as developed by Spanish authors of the first half of the 20th century; and the most significant contributions from 1951-1978). In each section, there will be a short general comment on the works and authors included. In the three appendices that follow, one for each period, there will appear a detailed study of the authors, works, and contents that feature the theoretical aspects of cost accounting we think characteristic and support our general conclusions. These appendices are presented in tabular form, with four columns – authors; works, and editions consulted; contents and general comments; and other comments and assessments of the works. In the second column, after the work's title, there appears a capital letter identifying the classification of its contents according to the following key: (A) general works with some section devoted to cost accounting, (B) works on accounting applied to specific activities, (C) works on general cost accounting, and (D) works on special facets of cost accounting.

Finally, it should be noted that our approach focuses neither on management or cost accounting practices nor on the

social context in which early developments on cost calculation emerged. Our aim has been to evaluate how the Spanish scholars thought about cost and management accounting's evolution. For this purpose, we have analyzed the works on this subject published from the end of the 19th century through the promulgation of the Spanish Standardization Act in 1978. Recent historical research has begun to study the emergence of early cost calculation practices in our country, its evolution and context. Interested readers can consult the interesting review by Carmona [2006, Vol. 2, pp. 905-923], in which the research carried out from the 1990s onwards by authors such Alvarez, Carmona, Carrasco, Donoso, Fernandez, Gutierrez, Gomez, Larrinaga, Prieto, Romero, and other scholars is reviewed.<sup>3</sup>

### COST ACCOUNTING TEXTBOOKS IN SPAIN: ORIGINS AND EVOLUTION

Though this research neither focuses on management or cost accounting practices nor on the social context, some analysis of our research findings on the evolution of Spanish scholars' thought on cost and management accounting is needed to strengthen its theoretical grounding and to make it more understandable.

First, since this paper aims to examine the development of academic cost accounting thought through the study of Spanish textbooks, it is necessary to analyze the connection between this evolution and the development of the degree structure to discover how the latter required the former. The chronological development of accounting studies in Spain<sup>4</sup> came in three phases<sup>5</sup>: foundation of the Schools of Commerce; introduction

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<sup>3</sup>A preliminary version of this work was published as a working paper No. WP05-30 by the Instituto de Empresa Business School, Madrid, November 18, 2005.

<sup>4</sup>A review on this subject can be found in Montesinos [1998] and Prado et al. [1991].

<sup>5</sup>Although beyond the boundaries of this study, the next important reform in university organization came in 1983 with the University Reform Act. It was necessary because of the transition to a democratic system after the dictatorship of General Franco. The new structure of university degrees introduced three degrees in Economics and Business:

- "Licenciado en Administración y Dirección de Empresas" (Degree in Business and Management).
- "Licenciado en Economía" (Degree in Economics)
- "Diplomado en Ciencias Empresariales" (a lower degree in Business and Management)

According to this academic plan, students had to take three compulsory subjects

of accounting as an academic subject in universities; and reform of economic studies.

*Foundations of the Schools of Commerce:* It has already been pointed out in the introduction that Commerce Schools were the only educational institutions responsible for accounting studies until such time as that charge was entrusted to the universities. At the turn of the 19th century, courses on “commerce” were being developed by organizations of merchants<sup>6</sup> (“Consulados,” “Juntas de Comercio”). In 1797, a royal decree entrusted “Consulados” to organize commerce studies.<sup>7</sup> Shortly thereafter, private commerce schools began to appear in Spain (Cádiz, 1803; Bilbao, 1804; Barcelona, 1805; Madrid, 1828). However, the French influence brought to Spain under Bonaparte rule a centralizing view of government that lingered after the Peninsular War. Thus, in 1836, the General Academic Plan was passed which included commerce studies in Spanish higher education and organized them officially in 1850 by royal decree.<sup>8</sup> Finally, in 1857, Schools of Commerce were founded as governmental centers for commercial studies, again by royal proclamation.<sup>9</sup>

Commercial studies were organized at three levels<sup>10</sup>: “Peritaje Mercantil” (elementary), “Profesorado Mercantil” (intermediate), and “Intendente Mercantil” (advanced). In the first, there were three accounting subjects: “Elementos de Contabili-

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on accounting in their first “cycle”: “General Accounting” (first year), “Financial Accounting” (second year), and “Cost Accounting” (third year, constituting 13.33% of total degree compulsory credits). In addition, two compulsory subjects in the second cycle were “Consolidation and Accounting Analysis” and “Auditing” (constituting 20% of total degree compulsory credits). Furthermore, students could study different optional subjects: “Public Accounting,” “Fiscal Accounting,” “International Accounting,” etc. according to the requirements of each faculty.

Finally, in 1990, the current University Law was passed with the new structure of degrees to achieve European convergence of higher education. However, since 1978 is the fixed boundary of the paper, its impact has not been analyzed.

<sup>6</sup>Even before, at the beginning of the 17th century, different private institutions offered studies in “Commerce,” e.g., in Bilbao, Saint Andrew’s College was founded in 1604 and St. Nicholas’ College in 1610, both teaching commerce.

<sup>7</sup>However, the first private commerce school was founded by the Real Sociedad Aragonesa de Amigos del País in 1784 (authorized by the Spanish King, Charles III),

<sup>8</sup>A review on this matter can be found in Fernández Aguado [1997].

<sup>9</sup>Queen Isabel II by royal decree founded National Schools of Commerce (September 8, 1850). This Act created the Madrid School of Commerce and provided for the foundation of Schools of Commerce in Barcelona, Bilbao, Cádiz, La Coruña, Málaga, Santander, Sevilla, and Valencia.

<sup>10</sup>In prior Schools of Commerce, there were only two levels – “perito mercantil” (elementary) and “profesor mercantil” (advanced).



dad,” “Teneduría de Libros” (Bookkeeping), and “Contabilidad General,” all related to financial accounting. In the second, there were also three courses – “Contabilidad Aplicada” (financial accounting), “Contabilidad Aplicada” (devoted to accounting issues applied to specific activities including cost accounting issues), and “Organización y Revisión de Contabilidades, Integración y Análisis de Balances y Contabilidad Pública” (a mix of audit, consolidation, analysis, and public accounting). In the third, there were no accounting courses.

The teaching methodology was very practical. Professors in these schools were engaged in very few academic research activities other than the publication of “handbooks” to advance general or particular knowledge among students or professionals. Professors devoted their efforts to professional practice in order to augment their poor wages.

*Introduction of Accounting as an Academic Subject in Universities:* Hitherto, accounting studies were situated only in the Schools of Commerce. In 1943, the government created the first Facultad de Ciencias Políticas y Económicas (Faculty of Political and Economic Sciences) in Madrid. Though it was an opportunity to entrust accounting teaching to universities, the early curricula of these faculties<sup>11</sup> did not include accounting subjects at all. Responsibility for accounting instruction remained with the Commerce Schools.

In 1953, the earlier Faculties of Political and Economic Sciences were recast as Faculties of Political, Economic, and Commercial Sciences, bringing about a fundamental milestone as the advanced courses of Schools of Commerce were absorbed into the universities. Since the best professors and professional practitioners moved from the former to the latter, accounting became a more important and larger component of the accounting student's curriculum. A causal link was established between this emergence of higher studies in accounting, economics, business, and administration and the post-1950 publishing boom of academic books in general and cost accounting books specifically.

*Reform of Economics Studies:* In the 1970s, another decisive landmark occurred when the degrees and curricula of the faculties were again modified. They became the “Facultades de Ciencias Económicas y Empresariales” (Faculties of Economics

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<sup>11</sup> In 1953, the faculties of Barcelona and Bilbao were founded.



and Business Sciences), offering two independent branches of study – Economics and Business. Furthermore, in 1971, by virtue of the 1970 General Education Act, the Schools of Commerce became “Escuelas Universitarias de Empresariales” (University Business Schools) and were integrated into the Spanish Universities. The 1973 Spanish academic plan for these faculties included a) one subject on general accounting and one on business in the economic branch, and b) a wide range of subjects on accounting, business, and management (financial accounting, cost accounting, etc.)

In this period, especially following the dictatorship, Spain underwent critical changes in its economical and social context. Francoism promoted isolation from the rest of Europe. From the mid-1970s, Spain had to face social and economic changes precipitated by the oil crises and its integration into the European Community. Spain went through a very important economic development, encouraging the opening of its economy and creating the conditions to professionalize and internationalize its enterprises, institutions, and organizations.

In these years, Spanish accounting research [Montesinos, 1998, pp. 357-380] took two main paths – a descriptive literature on the Spanish Chart of Accounts (1973) and a formal mathematical approach initiated by authors like Mattessich, Devine, Ijiri, Moonitz, and others. Notwithstanding, there was still only a small volume of academic research due to the scarcity of financial support for research and the small number of universities in the country. However, scholarly endeavor began to increase due to the contributions by academics such as Cañibano, Calafell, Bueno, Montesinos, and García.

As one can gather from prior paragraphs, the publication of books on cost accounting is related to the development of accounting studies in Spain. There was certainly an increase in the number of general accounting textbooks, but what was the significance of that increase as far as the evolution of cost accounting is concerned? That is, did the increase in the number of books reflect a parallel increase in the importance of cost accounting or did it just signal a general increase in the number of accounting textbooks?

There is, in fact, a great increment in the number of books on accounting published from the early 1950s. About one hundred were published in the first half of the century, while in the second half through 1978, approximately one thousand were published. Nevertheless, this ten-fold increase is not paralleled in the cost accounting area where the growth was more

moderate, from approximately 30 to about 50 for the later period.

To get a proper understanding of how cost accounting evolved in Spain, apart from approaching this matter as purely academic by counting the number of texts, it is necessary to analyze the development of cost techniques in professional practice. According to Amat et al. [1994, pp. 107-122], the introduction of cost accounting in Spain experienced significant delay, with only multinational companies disseminating new practices. The question needs be asked, what was the use of these cost accounting syllabi and textbooks if the sole driver of the publications was to satisfy the requirements of public administration agencies? From the end of Spanish Civil War (1936-1939) until the death of General Franco in 1975, Spanish social context was influenced by strong political dictatorship, with an economy stoutly controlled and sheltered. Before this period, Spanish neutrality in World War I, the lack of a bourgeois revolution, and the crisis at the end of the 19th century drove Spain into an isolationist economy. With the late arrival of her industrial revolution, it was necessary for multinationals to develop not only the basic industries, such as iron, steel, mining, and railroading, but the financial system as well. As will be seen in the appendices, these practices, brought initially by multinationals established in Spain, were widely disseminated by textbook authors.

A finding of the paper is that there were a significant number of engineers writing textbooks on cost accounting. This development should not be surprising given the early history of scientific management in the U.S. The reason is not an academic one because cost accounting was not included in engineering studies, rather it was a practical one. The staff in charge of firm cost accounting was engineers, not accountants. According to Armstrong [1987, pp. 415-436], German management hierarchies, until recently, have been dominated up to the highest level by professional engineers; it is virtually unknown for a German managing director to be an accountant. Spain industrial hierarchies, more in the German tradition than in the Anglo-Saxon, were basically composed of engineers [Fernández Peña, 1981, pp. 353-372; Carmona, 2006, Vol. 2, pp. 905-923]. Consequently, a significant number of textbooks were written by engineers.

#### FORERUNNERS OF COST ACCOUNTING IN 19TH CENTURY SPAIN

The first references to cost accounting in this period are to

be found in works on general bookkeeping. The more financial accounting evolved, the more cost studies gained in notoriety as the accounting specifically applicable to manufacturing. In this sense, it gained some recognition as an autonomous discipline utilized in special or sector accounting environments, such as banking, agricultural, mining, and the building trades. Although the tendency was to unified or monistic accounting and there was little thought about cost allocation, some works proposed the use of the term "*fabricacion*" (manufacturing) as the account in which costs were collected. The collection account bore a variety of names depending on the type of industry.

The contributions of the authors of this period to cost accounting are not particularly relevant. Some limited themselves to simple references to certain problems of cost finding. By contrast, the contributions of most of the studied authors to bookkeeping served to clarify and systematize accounting approaches in Spain.<sup>12</sup> In Appendix I, a brief analysis appears regarding the contributions of the most important authors of the period.

#### COST ACCOUNTING ADVANCES BY SPANISH AUTHORS, 1900-1950

This section is devoted to the first fifty years of the 20th century because from this date onward begins the introduction and spread of the German school of accounting thought represented by authors Pedersen, Schmalenbach, Palle Hansen and, particularly, Schneider.

The doctrinal orientation of the authors of the first half of the 20th century was conditioned by the prior objective of industrial accounting at the beginning of the century of finding cost and sale prices, the latter derived by adding costs to the desired profit margin. The finding of product cost was made following a monistic approach by means of a "*fabricacion*" (manufacturing) account and a cost allocation based on full costing and inorganic historical costs. A process-costing method was deployed without considering separate production centers corresponding to a uniform or homogeneous output and to relatively continuous production.

The main problem in the derivation of production cost lay in the assignation of indirect costs. They have to be added to

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<sup>12</sup>This remark represents the case in general, but there are exceptions as some works are limited to explanations of the rudimentary foundations of accounting by describing elementary notions developed in booklets of no more than 20 pages.

product cost by means of rates established subjectively, generally in proportion to the amount of the factors of production (raw materials, manpower, or both) inputted. The main differences among the several contributions analyzed lie in the allocation of fixed costs. Once the cost price is found through the addition of its different components, the sale price is obtained by adding the profit rate.

A common practice was to explain the fundamental elements of the discipline by describing concrete case studies, such as cost accounting in electrical companies, flour milling, mining industries, etc. The accounts to use in these cases were adapted to the nature of the respective industries.

Teachers of the former Schools of Commerce, such as Boter [1923a, 1923b], De la Helguera [1902], Gardo [1902], Munoz Arbeloa [1902], Rogina [1902], Castro y Suarez [1908], Sacristan y Zabala [1918], Ruiz Soler [1924], Rodriguez Pita [1932], and Vicens [1943a, b, c], spread the theoretical and practical foundations of industrial accounting, as the discipline was called in Spain during the first half of the 20th century, through textbooks addressed to students in different university courses.

Others like Corona [1915], Martinez Perez [1920], Fernandez Casas [1926], and Bruno [1931], who acted as inspectors of the Bank of Spain or held important positions in public or private firms, also became significant propagators of industrial accounting, spreading their ideas through their incorporation into the syllabi of the entrance examinations for the Bank of Spain or state agencies.

Among the most relevant contributions was the one by Rogina [1902] who introduced the first proposal of cost finding by production processes. This procedure consisted of finding the cost contribution of individual manufacturing phases. For each phase, intermediate accounts were opened. Also worthy of mention is the proposal made by Martinez Perez [1920] to use a "*labores*" (labors) account for every product and production center, a prototype of job-order costing. In this way, it would be possible to accumulate the costs of the goods finished and delivered to the warehouse by means of job orders. This constituted a clear precedent of a mixed operational model in Spain, e.g., by job orders and activities (production centers).

Another of the most important authors is Boter, who in his work *Precio de coste industrial* (industrial cost price), explains two procedures to calculate the industrial cost price that he considers complementary – one *a priori*, to assign a cost price to the

products before being sold without waiting until the end of the accounting year, and the other *a posteriori*, to compare results with the figures obtained through the *a priori* method. Moreover, he adds a second objective to the cost accounting: "Find out the year's results and the financial position of the firm" [Boter, 1935, pp. 10-11]. As other authors of this period, he introduces and proposes an organic scheme for the formation of the cost price. This causes a deep change in the analysis criterion since it goes from the consideration of single cost elements to organic aggregates by centers, identifying the costs driven by all cost elements in the diverse functions of individual departments.

Finally, it is at the end of this period when the expression "cost accounting" was introduced into the parlance. It is also the occasion when the discipline begins to be recognized as an autonomous science as it is today, even though there was some reluctance from some scholars as one can deduce from the words of Vicens [1943a, p. 7]. In effect, as he says in the preface of his work *Contabilidad industrial* (industrial accounting), "We are in no way claiming to have brought to the readers a compilation of what abroad is already considered an important branch of the technical-industrial science, the so called 'Contabilidad de Costo' [Cost Accounting]." In Appendix II, there is a short analysis of the contributions of the main authors of this period.

### MOST SIGNIFICANT CONTRIBUTIONS FROM 1951-1978

Practically at the same time that the Spanish translation of Schneider's [1949] work *Contabilidad industrial* (Industrial accounting) appeared in 1952, *Los costes y la Política de precios* (costs and price policy) by Pedersen was published. As a consequence of both works, the cost accounting methodology in the country changed significantly. It will be recalled that in the first half of the 20th century, the typical approach was based on a specific calculation of costs within a model of full-cost allocation.

The suitability of these approaches for business management was placed in doubt for several reasons. First, there was the question of whether individual products were actually allocated a proportional amount of indirect cost. Second, the allocation of the indirect costs was based upon highly subjective elements. Third, it was generally felt that the full-cost accounting approach was not able to provide the basis for an accurate analysis of product profitability. The method of homogeneous centers and job costing are the key elements of the system

proposed by Schneider. It arose in the hopes that the above deficiencies could be overcome, allocating to every product the appropriate proportion of the costs incurred in the different production departments involved in its transformation process. The departments became responsibility centers for the effective economic control of the company by management.

On the other hand, during the 1950s, the direct costing model for assigning costs was introduced into Spain. There is no unanimous opinion among researchers as to the origins of direct costing. Some think it originated in the U.S. during the 1930s [Harris, 1936]; others trace its origins to Schmalenbach; still others date the innovation from the 1940s U.S. as reported in *Research Report No. 23 –Direct Costing*, issued by the National Association of Cost Accountants in 1953.

Whatever its origin, the earliest references to direct costing in Spain are first found in the 1960s based on the three following premises:

- Only variable expenses can be assigned to product, not the fixed costs.
- The difference between the sale price and the variable expenses determines the gross contribution of every product to the firm results.
- The fixed expenses are linked to time periods and should be so charged.

Criticisms of direct costing were immediately heard. They focused on the inadequacy of direct cost to determine the sale price, as well as on the exclusion of all general expenses for inventory valuation. This dissent provided grounds to revisit the advantages of the full-costing models.

Another important milestone of this period was the consolidation of predetermined cost systems and, in particular, standard costing. It was considered that they contributed to better management. These systems presented significant possibilities for future costing and precipitated an evolution that led accounting to more effective cost/profit analysis and operating control.

Finally, the influence of American thought, embodied in the works of authors, such as Kester, Horgren, Lang, Lawrence, Neuner, etc., began to make itself felt in the second half of the 20th century. Together with the publication of the French Accounting Plan, these theories had a great impact among accounting experts in this half of the century.

The first official French Accounting Plan (Plan Comptable Général), published in 1957 although its origins predated its

publication according to Standish<sup>13</sup> [1990, pp. 337-351], adopted a dualistic view in proposing a totally separate functioning of cost accounting and general accounting. The influence exerted by the French general chart of accounts on the shaping of Spanish financial accounting is evident in the structure of the Spanish General Accounting Plans of 1973 and 1990, which are clearly inspired by the French plans of 1957 and 1982 respectively. With regard to the standardization of cost accounting, the influence of France is likewise obvious although the weight of German methodological approaches is also perceptible.

Besides the above facts, the proposal for a comprehensive chart of accounts of Professor Calafell, formulated in 1958 [Dodero, 1975, pp. 113-115] and published in 1963 [Calafell, 1963, pp. 125-135], is worthy of mention. The plan is explained in detail by Requena [1973, pp. 125-135]. Its economic reasoning and approaches are clearly inspired by Central European thought as can be seen in groups five “clases de costes” (kinds of costs), six “lugares de costes” (cost places), and seven “portadores de costes” (cost bearers). His planning proposal of the economic-technical cycle of the firm constitutes a precedent for his text,<sup>14</sup> published in 1978, contained in group nine, “contabilidad analítica” (analytical cost accounting), within the Spanish first *Plan General de Contabilidad*, passed in 1973.<sup>15</sup> This text marks the end of the period under study in the paper. In Appendix III, there appears a brief analysis of the contributions of the main authors of this period.

## CONCLUSIONS

The following bullet points are the main conclusions the

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<sup>13</sup>Its origins occurred during World War II when the Vichy Government, under powerful German pressures, appointed a commission to develop and implement a national chart of accounts, with the intention to make it compulsory for all enterprises and industrial sectors. French authors and accounting scholars do not agree about the circumstances in which this plan was adopted. On the one hand, some think that its origins are to be found in the *Plan Comptable Général* (French Accounting Plan), adopted in 1942, which is closely similar to the Göering Plan [Detoeuf, 1941, p. 9; Chezlepretre, 1943, p. 14; Fourastie, 1943, p. 14, quoted by Standish, 1990, pp. 337-351]. On the other hand, other authors had increasingly come to the idea that the *Plan Comptable* was the result of a process of indigenous development of pre-war views. They defend this idea on the basis of a proposal entitled *Methode uniforme de calcul des prix de revient*, published in 1937 by the Commission Generale d'Organization Scientifique (CEGOS).

<sup>14</sup>Ministerial Order of August 1, 1978

<sup>15</sup>Decree 530/1973 of February 22, 1973



authors have drawn from the evolution of Spanish cost accounting in the three periods identified.

- Cost accounting is introduced in Spanish academic literature at the end of the 19th century. This introduction took place in two ways – fundamentally by means of sectorial studies (farming, mining, banking, etc.) but also as a consequence of firm practices.
- During the late 19th century and the early 20th century, cost accounting was not an independent discipline. It was integrated into general accounting.
- Most Spanish texts on cost accounting in this period lacked scientific ambition and are not true contributions. They simply consist of explanations for teaching purposes.
- The spread from the 1950s of the works by Central European authors, such as Schneider, Palle Hansen, and Schmalenbach changed substantially the accounting approaches in Spain. Cost accounting became independent from general accounting. Up to then, there had been a clear monistic approach.
- From this time and especially from the 1960s, the U.S. influence began to gain importance, as well as direct costing.
- With the publication of the French Standardization Plan of 1957, the French pattern of homogeneous sections achieved a great prominence. They are taken together with Schneider's contributions in formulation of group nine on analytical accounting in the Spanish Standardization Plan published in 1978.

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# APPENDIX I AUTHORS OF THE 19TH CENTURY

(A) general works with some section devoted to cost accounting; (B) works on accounting applied to specific activities;  
(C) works on general cost accounting; (D) works on special facets of cost accounting

Authors	Works	Contents	Other comments
Felipe Salvador y Aznar member of the Real Academia de la Historia (Royal Academy of History); Commander of the Order of Charles III; professor of the Arts and Science Association	<i>Manual de Teneduría de libros por partida doble</i> (Handbook of Double-Entry Bookkeeping) (A) 1st edn. 1846 19 editions, last one in 1910	It is a theoretical-practical work. It analyzes the accounting of banks, aristocracy, great landowners, and companies. Lesson XXVIII is devoted to the accounting of factories, as well as farmers in general and sugar farms specifically. A factory or a mine needs the following accounts to keep their accounting: Primeras Materias, Jornales operarios, capataces y maestros, Gastos de fabricación, y Almacén de generos fabricados (raw materials, wages to workers, foremen and masters, operating expenses, and warehouse (p. 86).	main contribution: first author to mention applied accounting with regard to specific activities, i.e., manufacturing accounting; consequently, first reference to cost accounting
Emilio Oliver y Castañer (ed.)	<i>El Consultor del Tenedor de libros</i> (The Bookkeeper consultant) (A) 1st edn. 1883	Joint work gathering monographic papers by several authors, published in fascicle form. Their interest bases on their practical nature.	According to Antonio Goxens, for many years, this work was most consulted by industrial bookkeepers in Barcelona.
Manuel Fernández Font professor of bookkeeping; Bachelor of Commerce with an important professional career as accountant in several credit companies and railways in Switzerland and France	<i>Contabilidad industrial y Agrícola Simplificada</i> (Simplified industrial and farming accounting) (B) 1st edn. 1890	It is a textbook devoted to practical teaching of accounting that does not make any contribution to cost accounting. Through a monistic approach, it proposes the use of a manufacturing account with different names according to the industrial activity exercised. This account accumulates the costs of the different processes. The author does not enter into any considerations of cost allocations.	
Román Oriol professor and mining engineer	<i>Contabilidad minera: Lecciones explicadas en la Escuela de ingenieros de Minas</i> (Mining accounting: lessons explained at the School of Mining Engineers) (B) 1st edn. 1894	In the first part of his book, the author distinguishes between accounting and industrial accounting. He ascribes more importance to the latter, identifying the former with bookkeeping. On the contrary, he curiously identifies the later with accounting organization. We think that he is the first author who attributes a real importance to industrial accounting, considering that it is in some way independent of bookkeeping. In the second part of the book, he exposes an analysis of mining accounting. He begins with a classification of expenses, distinguishing between fixed and variable. He goes on by indicating the expenses that form product cost. He considers statistics as an indispensable complementary device and defines it as "statements in which are recorded all relevant data to compare one moment and the other." In this sense, very diverse statements may result according to the type of industry.	The author considers that studying accounting is an indispensable complement to achieve a true specialization as a mining engineer.



# APPENDIX II

## AUTHORS OF THE FIRST HALF OF THE 20th CENTURY

(A) general works with some section devoted to cost accounting; (B) works on accounting applied to specific activities;  
(C) works on general cost accounting; (D) works on special facets of cost accounting

Authors	Works	Contents	Other comments
Alvaro de la <b>Helguera</b> Bachelor of Commerce; professor, accountant of the Official Central Institute of Graduates in Commerce of Spain; vice president of the Official Institute of Graduates in Commerce of Bilbao; chief accountant of Hulleras Puertollano, S.A.	<i>Contabilidad Industrial</i> (Industrial Accounting) (B) 1918	It is a textbook of a theoretical-practical nature devoted to Antonio Sacristan y Zabala. Its contents are much more specific than the ones of the previous book that he wrote on accounting [1902]. It exposes in detail and with many practical examples the accounting of an electricity company, a case that is also applicable with little change to other industries. The accounting is developed by means of general explanatory statements. Industrial accounting is defined as the science that provides us with the basic rules to describe the economic and administrative facts constituting the wealth of a factory or workshop. Cost calculation is considered an appendix to general accounting and functions through the "Operating" or "Manufacturing" account which goes by different names depending on the kind of industry.	Its contribution to cost accounting is minimal.
Jose <b>Rogina</b> professor of the School of Commerce of La Coruña; former chief accountant of the Bank of Spain branch	<i>Tratado de Contabilidad general o Teneduría de libros</i> (Treatise on General Accounting or Bookkeeping) (A) 1st edn. 1902	This is a textbook of a general nature that contains a section devoted to the special accountings of bankers, factories, owners, big commercial companies, state, province, and town councils. In the section devoted to factories accounting, the author proposes, in line with a monistic approach, the use of a "Manufacturing" account, in which the amount of the inputs is charged and the receipts obtained from the sale of manufactured products is credited. The cost building accounts that the author considers are: machinery, raw materials, manpower, overhead costs, and manufactured products or manufacturing. After enunciating the accounts, he explains in detail the functioning of every one. He proposes a procedure that he describes as novel. It is a procedure staggered into manufacturing stages. For each stage, interim accounts are opened. At the first production stage, the raw material cost, the wages, and the corresponding rate of manufacturing and overhead costs are charged to the interim account. The latter is credited with the value of the product obtained at the stage. At the following stage, the respective interim account is charged with this value. This will be increased by the costs of this stage and so forth to obtain the finished product. If some of the general expenses could not be broken down, they would be charged at the last stage.	The relevance of Rogina's proposal stems from the fact that it is the first proposal formulated for an alternative procedure in manufacturing stages or processes, which are complemented by the implementation of the corresponding auxiliary books.
Mariano <b>Castro y Suárez</b> professor of Industrial Technology at the Jovellanos School of Commerce of Gijón	<i>Contabilidad de Empresas Industriales</i> (Accounting for Industrial Companies) (B) 1st edn. 1908 2 vols.	Textbook of a theoretical-practical nature. It describes the production process in different industries: farms, mills, bakeries, pasta and starch factories, sugar refineries, chocolate manufacturers, wine producers, brewers, alcohol producers, oil mills, soap factories, candles producers, tanneries, textile manufacturers, paper manufacturers, cork and stopper factories, printers, and electric companies. The author analyzes the production operations of all these entities as the basis for his accounting approach of a monistic nature. He emphasizes the importance of breaking down the manufacturing account into consecutive stages if it is possible to specify the product in process in every stage.	The work shows that the author was familiar with different industries.

Authors	Works	Contents	Other comments
Eloy <b>Martínez Pérez</b> Bachelor of Commerce; branch chief accountant of the Bank of Spain	<i>Contabilidad elemental y superior</i> (Elementary and advanced Accounting) (B) 1st edn. 1920 published in three further editions	It is a textbook in a theoretical-practical line. It gathers the author's final contribution, since he refines and completes his thoughts and the explanations of his previous work [1910]. He exposes the different kinds of accounting with regard to the object or activity dealt with. The book tackles the building of price cost in all types of firms. The author's main contribution to cost accounting is his treatment of factories accounting. He defines the price cost of manufactured products as the total sum of raw materials and the manufacturing expenses of the different workshops, as well as the overhead expenses. To find this cost, he proposes the use of a "Labours" account as the cost building account, which gathers the overall cost by means of job-order cost sheets with regard to every good produced and delivered to the warehouse. It constitutes a clear precedent in Spain of the proposal of a mixed method by operations, job orders and processes (workshops or departments). The problem of general expenses is solved by charges that the central administration of the company makes to every production center or department in order to calculate overhead costs on a pro-rata basis. In the event that there were not a more equitable basis, the author proposes the amount of paid wages. On the other hand, the author advises to decentralize the accounting by departments or factories, as well as to establish a statement of the labor input in order to calculate the value of the products in process. It deals with the concepts and conditions of farming and ranching operations. The author's method of farming accounting follows, according to explicit mention by the author, the one used by T. Convert in his work <i>Comptabilité agricole</i> [1904]. The book explains the application of a double-entry bookkeeping to farming operations.	This is one of the most important authors of the beginning of the 20th century. His work is important because of its information and the clarifying nature of the practices in different kinds of industries. His expositions always join practical with theoretical developments.
Carlos <b>Corona</b> engineer and agricultural technician	<i>Administración y contabilidad agrícolas</i> (Agricultural administration and accounting) (B) published in 1915	It is a textbook in the theoretical-practical line devoted to the students of the Commercial Schools. The author considers accounting as a branch of applied mathematics. He includes cost accounting within what he calls special subjects and considers it indispensable for the training of the accountant. If he does not know this subject, he will not deserve to be called accountant because he is a simple "bookkeeper." The main aim of cost accounting is the building of the product cost price. It is formed by the cost of raw materials and remaining expenses. He proposes a proportional principle for its finding. Following a monistic approach, he considers the use of the "manufacturing" account to be charged with the amount of the inputs and credited with the obtained product. However, he defines the industrial firm as a mixed entity and, consequently, it seems that he considers the two fields, the internal and the external.	The author's contribution is mainly informative and instructive. It includes general references on the configuration and calculation of costs of farming products.
Antonio <b>Sacristán y Zavala</b> accounting professor at the School of Commerce; president of the Commercial and Industrial Society; inspector-manager of the Sociedad Editorial de España (Publishers Society of Spain)	<i>Teorías de contabilidad general y de administración privada</i> (Theories of General Accounting and Business Administration) (A) 1st edn. 1918 3rd and final edition 1932	It is a textbook in the theoretical-practical line devoted to the students of the Commercial Schools. The author considers accounting as a branch of applied mathematics. He includes cost accounting within what he calls special subjects and considers it indispensable for the training of the accountant. If he does not know this subject, he will not deserve to be called accountant because he is a simple "bookkeeper." The main aim of cost accounting is the building of the product cost price. It is formed by the cost of raw materials and remaining expenses. He proposes a proportional principle for its finding. Following a monistic approach, he considers the use of the "manufacturing" account to be charged with the amount of the inputs and credited with the obtained product. However, he defines the industrial firm as a mixed entity and, consequently, it seems that he considers the two fields, the internal and the external.	This book was important because of its wide dissemination due to the fact that it was devoted to the students of the Schools of Commerce. For this reason, it was widely read and quoted.

Authors	Works	Contents	Other comments
<p><b>Luis Ruiz Soler</b></p> <p>professor of the School of Commerce of San Sebastian</p>	<p><i>Elementos de Administración y Contabilidad de Empresas</i> (Elements of Administration and Accounting for Companies )</p> <p>(B)</p> <p>It is the second work of this author.</p> <p>1st edn. 1924</p> <p>5th and final edition 1945</p>	<p>The book was declared a commendable piece of work by the Real Academia de Ciencias Exactas, Físicas y Naturales (Royal Academy of Exact Sciences) and by the Real Consejo de Instrucción Pública (Royal Council for Public Education).</p> <p>It constitutes a complement to his previous work <i>Tratado elemental teórico-práctico de contabilidad general</i> (Theoretical-practical elementary treatise of general accounting), published in 1917, although in the line of applied accounting.</p> <p>He was the first to state the difference between applied accounting with regard to the subject, that is, to the legal status of the owner, and applied accounting with regard to the object, that is, to the kind of economic activity involved.</p> <p>He also makes the distinction between the two fields that are present in companies: the industrial or technical that embraces the internal facts or activities (productive process) and the commercial that embraces the external operations (goods purchases, sale of products, discounts, and cashing).</p> <p>He classifies companies in three classes: industrial, agricultural, and transportation. With regard to the industrial companies, he distinguishes two defining features according to the nature of their production:</p> <ol style="list-style-type: none"> <li>1. The continuity of the production process: continuous and discontinuous or by consecutive stages.</li> <li>2. The number and kind of products: homogeneous products and numerous and diversified products.</li> </ol> <p>On the other hand, he distinguishes between general manufacturing expenses (expenses to allocate directly to products, e.g., specific fixed costs and expenses of general allocation) and general administration expenses.</p> <p>The part devoted to industrial accounting is minimal.</p> <p>He proposes to separate the commercial accounting records from the industrial ones, while maintaining both within the same accounting. He attributes as an objective of commercial accounting the establishment of profit or loss. On the contrary, the industrial accounting aims to find out the industrial cost price.</p> <p>As to the industrial accounting, he proposes the "manufacturing" account to collect the transformation of the production elements into products. This account is charged with raw materials, manpower, and manufacturing general expenses and credited with the estimated sales price. The balance will gather the calculation errors, which will be posted on the profit-and-loss account.</p>	<p>This author's contribution is of great significance for cost accounting. He deals very skillfully with such subjects as the distinction between subjective and objective accounting, internal and external accounting, the classification of fixed costs, calculation methods for joint production, etc.</p>
<p><b>Fernando Boter Mauri</b></p> <p>professor at the Schools of Commerce of Santander and Valladolid</p> <p>Bachelor of Commerce and Doctor of Law</p>	<p><i>Curso de Contabilidad</i> (Accounting course)</p> <p>(A)</p> <p>1st edn. 1923a</p> <p>With the 5th edn., published in 1941, the title changed to <i>Tratado de Contabilidad general</i> (Treatise on General accounting).</p> <p>20th and final edn. in 1988 with Jorge Serra Murtra as co-author</p>	<p>He proposes to separate the commercial accounting records from the industrial ones, while maintaining both within the same accounting. He attributes as an objective of commercial accounting the establishment of profit or loss. On the contrary, the industrial accounting aims to find out the industrial cost price.</p> <p>As to the industrial accounting, he proposes the "manufacturing" account to collect the transformation of the production elements into products. This account is charged with raw materials, manpower, and manufacturing general expenses and credited with the estimated sales price. The balance will gather the calculation errors, which will be posted on the profit-and-loss account.</p>	<p>The author is one of the great authors of the 20th century with numerous publications during a wide period of almost 70 years. His influence can be clearly felt in all accounting research in Spain, particularly in cost accounting, from the first quarter of the 20th century.</p> <p>He was a pioneer in Spain to use predeterminations in the calculation of the cost price and pricing.</p>
<p><b>Fernando Boter Mauri</b></p> <p>(continuation)</p>	<p><i>Nociones fundamentales de contabilidad</i> (Elementary notions of accounting)</p> <p>(A)</p> <p>1st edn. 1923b</p>	<p>This book is a summary of the main chapters of the previous work <i>Tratado de Contabilidad General</i>. It proposes to make forecasts and assumptions on the amount of the year's production expenses and on the volume of production.</p> <p>The author proposes as the objective of industrial accounting the comparison at the end of the accounting year between the price costs assigned <i>a priori</i> with the actual ones that become reality.</p>	

Authors	Works	Contents	Other comments
<p><b>Jose Gardó Sanjuán</b></p> <p>Master of Science in Commerce; sworn Chartered Auditor member of the Real Academia de Ciencias Económicas y Financieras (Royal Academy of Economic and Financial Sciences)</p>	<p><i>Manual práctico de Contabilidad Industrial</i> (Practical handbook of Industrial Accounting) (C) 1st edn. 1925</p>	<p>It explains the rudiments of this discipline. The author does not consider industrial accounting as a discipline different from general accounting, but as a part of it, an auxiliary accounting, a tool to find costs and establish a reduction in prices. To allocate indirect costs, he proposes a "predictive allocation," that is, to estimate a fixed manufacturing cost amount for every produced unit and to correct it in each period. He considers internal statistics as an indispensable auxiliary accounting and develops at length the features and models of this recording. He presents a proposal of accounting recording and displaying in line with a monistic approach. For this purpose, he proposes the use of a building account entitled "Fabrication, Exploitation, Production o Industria," that is, Manufacturing, Exploitation, Production, or Industry. It is charged with the inputs and a balancing entry on the respective expenses accounts and credited with the industrial cost of the goods produced and the corresponding entry on the products account.</p> <p>It constitutes an enlargement of the first book. In it, the author considers industrial accounting a form of general accounting, even though with different objectives. The author completes the explanations of the cost building in an inorganic system advanced in his previous work:</p> <ul style="list-style-type: none"> <li>• "Precio de coste de fabricación," that is, production cost price or direct cost.</li> <li>• "Precio de coste industrial," that is, industrial cost price (the previous one plus the industrial general expenses).</li> <li>• "Precio de coste comercial," that is, commercial cost price (the previous one plus the sales expenses and the general expenses of the company).</li> <li>• "Precio de venta," that is, sale price (the price at which the products are sold).</li> </ul> <p>For the allocation of manufacturing expenses, he proposes the use of proportional rates applied to the costs by labor units, or labor value, to a general percentage or to a percentage by sections, carrying out a detailed calculation for each worker.</p>	<p>He is one of the main and most prolific Spanish writers on cost accounting. He ascribes to industrial accounting the main objective of finding the cost prices and the secondary objective of ascertaining the results and the financial situation of the company.</p>
<p><b>Juan Fernández Casas</b></p> <p>Bachelor of Commerce at the service of the Exchequer at the General Direction of Banking and Stock Exchange</p>	<p><i>Monografías de Contabilidad Industrial: Generalidades y prolegómenos</i> (Monographs on Industrial Accounting: Generalities and prolegomena) (C) 1st edn. 1926</p>	<p>It is a little book of 80 pages in which the author considers industrial accounting as an auxiliary accounting, technical or statistical, where the manufacturing operations are recorded. In the staggered building of the cost price, he considers the industrial cost price, the commercial cost price, and the sale price. He advises the use of the perpetual inventory system in the manufacturing account that he considers the "company dynamic account."</p> <p>As to the allocation of general manufacturing and commercial expenses, he proposes a simple consideration of their estimated amount in the first year. In successive years, he suggests their allocation on the basis of proportional rates of employed manpower, raw materials, the sum of both (method of cumulative supplements), or the production by time units (labor hours) of the previous year.</p> <p>He studies applied accounting by both subject and object, analyzing the main company classes. A chapter is devoted to administrative accounting (private and public sectors). Costs are studied within general accounting by means of a specific manufacturing account with a name depending on the type of company or industry.</p>	<p>Significant contribution with regard to the calculation of production costs. He outlines the different calculation methods for a joint production.</p>
	<p><i>Contabilidad aplicada</i> (Applied accounting) (C) 1st edn. 1931 3rd and final one 1949</p>		

Authors	Works	Contents	Other comments
Miguel Muñoz Arbeloa Bachelor of Commerce	<i>Contabilidad de la Industria Harinera</i> (Accounting for flour mills) (B) 1st edn. 1930	It is framed within the sector accounting and classifies the activities of a flour mill in: main activities, auxiliary activities, and general activities, describing the objective and features of each kind of activity. On its part, the production is classified in main activity (flour) and secondary by-products (bran and waste products). To allocate the latter to the main production, the author proposes the subtraction method, i.e., valuation of the by-products at their sale price and deduction of their total amount from the overhead costs.	The author's contribution is very useful, above all with regard to his analysis of financial and industrial accounting for flour mills, as well as his organic conception of the cost-finding process in a case of multiplicity of joint products with the application of the subtraction method.
	<i>Ideas Contables</i> (Accounting thoughts) (B) 1st edn. 1945	It has a general and informative nature with regard to accounting questions and practices of the time. Within the variety of questions dealt with, there are some regarding cost accounting. The book also deals with sector accountings, such as farming, electricity companies, transportation by trucks, and flour mills, the latter already dealt with in the author's previous book. By dealing with the structure and composition of cost price, the author considers direct cost, industrial cost, commercial cost, and full cost. The latter is the result of adding to the commercial cost the administrative general expenses employing a proportional rate. The sale price is obtained by adding to the full cost price a profit margin. The author does not consider the market situation and forces when it comes to fixing the sale price.	
Jaime Vicens Carrió member of the Real Academia de Ciencias Económicas y Financieras (Royal Academy of Economic and Financial Sciences) and of the Instituto Nacional de Racionalización y Normalización (National Institute for Rationalization and Standardization).	<i>Contabilidad Industrial</i> (Industrial Accounting) (C) 1st edn. 1943a 8th and final one 1975 <i>Costes y presupuestos del pequeño industrial</i> (Costs and predictions of the small industrialist) (C) 1st edn. 1943b Another work of this author is <i>Estudio y cálculo del precio de venta</i> (Study and calculation of sale price) (D) 1st edn. 1943c	It is a textbook in the theoretical-practical line. It deals with the scope, objective, and functions of industrial accounting, and analyzes the cost components and their calculation. It adopts the traditional cost classification: basic cost, production cost, industrial cost, commercial cost, and, if profit is added, sale price. It presents some models of pricing and deals in more detail with the direct-costing model. It is also a textbook in the theoretical-practical line. It distinguishes between prediction and cost, i.e., prediction represents a probability and cost is a reality. The author professes an organic and predetermined conception of the cost-finding process. He defines the production center as a whole of machines-men-places. To calculate the center cost, its components are to be taken into account, that is, materials, manpower, and expenses. The application criterion has to be wide because it represents the calculation of the transformation cost in different stages. Each stage is represented by a center. He distinguishes between predictions and standards. As to the former, he takes into account the predictions control that allows checking the unit prices. The author thinks that the standards constitute an ideal point of reference and incentive, a target to reach. They must not be mistaken for the optima, which supposes the almost total utilization of the production factors. With the standards are possible two kinds of checking, one general and the other in percentage terms.	The author's main contribution is the spreading of German thought. In the bibliography of the 5th edition of <i>Contabilidad Industrial</i> , published in 1970, are quoted the works by Schneider [1949], Palle Hansen [1957], and H. Winding Pedersen [1952].

## APPENDIX III

## AUTHORS OF THE SECOND HALF OF THE 20TH CENTURY UP TO 1978

(A) general works with some section devoted to cost accounting; (B) works on accounting applied to specific activities;  
(C) works on general cost accounting; (D) works on special facets of cost accounting

Authors	Works	Contents	Other comments
Antonio Goxens Duch professor at the School of High Commercial Studies of Barcelona; director of the School of Commerce of Sabadell; life member of the Real Academia de Ciencias Económicas y Financieras (Royal Academy of Economic and Financial Sciences)	<i>Curso de Contabilidad Aplicada por el Objeto (en especial industrial y de costes)</i> (Course of Applied Accounting with regard to the object, especially industrial and cost) (B) 1st edition 1956 <i>Manual de cálculo de costes y contabilidad industrial</i> (Handbook on cost calculation and industrial accounting) (C) 1st edn. 1957 4th edn. 1974	Textbook. The author presents a stage cost classification and explains a cost finding staggered process in four stages. He follows an inorganic model in which is distinguished basic, industrial, commercial, and final cost. He makes a superficial exposition of the different proportional calculation methods (division, equivalences, additional quotas (supplements), and joint provisions). He refers to the "confusion method" that only attempts to find the total production cost as a whole. Following Schneider, he explains briefly the results finding in the accounting systems by orders and by sections. He also enumerates the Anglo-Saxon systems and finishes with a succinct description of predetermined systems.	He does not introduce original contributions to the subject.
		Textbook. It analyzes: <ul style="list-style-type: none"> <li>the components of industrial cost: raw materials (concept, classifications, warehouse questions, valuation of inputs); manpower costs (control methods of manpower, valuation, nominal and actual wages; charge to costs, recording on accounts, allocation, performance measurement, welfare services according to social laws); industrial equipment costs (classification of the tangible fixed assets, difference between rent and depreciation, reason and usefulness of investments, fixed assets renewal and impairment by use as deciding factor of investment, methods to allocate depreciation to costs); costs of manufacturing activities (production expenses, allocation, classification as direct and indirect expenses, fixed and variable, constant and periodic, allocation criteria, accounting); interest of own capital and entrepreneur's remuneration; stocks as fixed assets; waste; breakage; etc.</li> <li>cost findings methods; comparison between direct-costing and absorption costing</li> <li>determination of historical costs and predetermined costs, distinguishing among estimated costs, standard, and predictive</li> <li>differentiation in Schneider sense between external and internal accounting, analyzing the results found in both accountings.</li> <li>monistic and dual systems of accounts coordination</li> </ul>	The author makes a superficial analysis that does not present original contributions to cost accounting. The work is limited and serves only as a textbook for the students of the Schools of Commerce.
	<i>Contabilidad general: Con notiones de organización, administración y economía de la empresa</i> (General Accounting: with notions of organization and business administration) (A) 2nd edn. 1958a	Textbook that answers the syllabus of the subject general accounting of the official Schools of Commerce.	As to cost accounting, the book makes only reference in the first chapter where the economic activity and its main elements are studied.

Authors	Works	Contents	Other comments
Antonio <b>Goxens Duch</b> (continuation)	<i>Contabilidad de empresas</i> (Accounting for companies) (A) 1st edn. 1958b	<p>Textbook. It classifies costs in the following groups:</p> <ul style="list-style-type: none"> <li>• costs or prime costs with regard to its nature,</li> <li>• costs origin,</li> <li>• goods, products, or production stages, that is to say, the things on which costs are charged. With regard to the "analytical cost accounting systems," the book's author identifies the concept of costs systems as the link system and distinguishes: confusion system, radical monistic system, moderate monistic system, and dual system.</li> </ul> <p>He points out that in both systems, monistic and dual, it is possible to use a standard cost control or an historical costs method.</p>	Accounting complete course devoted to the student of the Banking Institute.
	<i>Contabilidad aplicada a empresas</i> (Accounting applied to companies) (A) 1st edn. 1959	Textbook. Although the work contents dealt mainly with accounting for companies, chapters IV and VII contain items related to costs.	The book does not introduce any novelty with respect to the author's previous works.
	<i>Contabilidad analítica industrial, según el Plan Contable General de Francia</i> (Analytical Industrial Accounting according to the General Standardization Plan of France) (D) 1st edn. 1960	Textbook. Exposition of the structure and methodology of analytical accounting (lesson 9) according to the French Plan, 1957 version: <ol style="list-style-type: none"> <li>1. current terminology</li> <li>2. accounts functioning method</li> <li>3. predetermined costs method</li> </ol>	As it is a mere description of the French Plan of 1957, the book neither introduces any novelty nor presents any remarkable aspects.
	<i>Selección de supuestos prácticos de Contabilidad aplicada por el objeto: (en especial industrial y de costes)</i> (Selection of practical problems of Applied Accounting with regard to its object: (especially industrial and cost accounting)) (B) 1st edn. 1968	It contains practical problems as material for explanations and class practices.	The book only contains the formulation of problems with blank sheets for solutions to be done in the classroom and delivered to the professor for correction.



Authors	Works	Contents	Other comments
Aramando Suárez Franck Master of Science in Commerce	<i>Contabilidad industrial aplicada a empresas transformadoras y distribuidoras</i> (Industrial Accounting applied to commercial and manufacturing companies) (B.C) 1st edn. 1956	<p>Informative text in the theoretical-practical line. From an inorganic point of view, it analyzes the main accounts used in industrial accounting. It distinguishes two main groups: tangible fixed-assets accounts and production or manufacturing expenses accounts. The latter can be classified according to their nature in raw materials, manpower, or manufacturing services according to their effect on the product. They can also be classified as direct or indirect expenses.</p> <p>As to the cost structure, the book distinguishes the following aggregates that can be calculated in a whole, by stages, by job orders, or by units:</p> <p>Prime production cost is composed of the addition of material costs and employed manpower.</p> <p>Manufacturing cost is the former cost plus the cost of manufacturing services.</p> <p>Sale price includes the previous cost classes and the commercial, financial, administration, and direction expenses plus the profit that the company wants to obtain.</p> <p>Starting from these definitions, the author explains questions regarding the functioning of the different accounts and expense entries taking into account their nature and use in the production process in order to find the corresponding cost prices. They can be calculated by direct measuring (raw materials and direct manpower) or by allocation rates (manufacturing services).</p> <p>With respect to commercial companies, the author only considers two cost components: purchase cost of the goods acquired for sale and operative cost, that is, expenses incurred for basic business functioning.</p> <p>Informative text in the theoretical-practical line: As regards costs, the author includes in his chart of accounts several accounts related to internal accounting.</p> <p>Following Pallo Hansen [1957], he identifies several interface variants between both accounting systems:</p> <ul style="list-style-type: none"> <li>• Pure monism: Both accountings are assembled as a homogeneous whole.</li> <li>• Monism with a mirror or reflex account, also called relative dualism: "All operations recorded in the internal accounting appear also in the external accounting by means of a special account."</li> <li>• Pure dualism: The two accounting systems function with absolute independence of one another. The link between them, as accountings belonging to the same company, is maintained through a special account that collects in every period the movement which in some way has an influence on the initial relationship of both accountings. Moreover, at the end of the accounting year, the two accountings are combined to become one and a single balance is struck.</li> </ul>	<p>It is one of the publications on the subject that offers a wide bibliography containing works of foreign authors such as Burton [1936], Dhor et al. [1946], Gillespie [1952], Hansen [1957], Kester [1939], Lasser [1957], Neuner [1954], Pedersen [1952], Schneider [1949], and Specthne [1949].</p>
	<i>Organizacion de contabilidades</i> (Accounting's organization) (A) 1st edn. 1958	<p>Handbook on accounting's organization and mechanized procedures available at that time.</p>	

Authors	Works	Contents	Other comments
<p>José María <b>Fernández Pirla</b></p> <p>professor of Business Administration at the Central University of Madrid; professor of Accounting at the Higher School of Commerce of Madrid; member of the Experts in Commerce Corps of the Exchequer.</p>	<p><i>Un ensayo sobre teoría económica de la contabilidad. Introducción contable al estudio de la economía de la empresa</i> (An essay on accounting economic theory. An accounting introduction to business administration) (A)</p> <p>1st edition 1957.</p>	<p>Textbook. The author identifies three natural stages in cost analysis: classification, location, and allocation. He makes the fundamental distinction between external or financial field and internal field. It is in the latter that the economic process of cost building takes place, according to the values circulation model explained by Schneider. On this basis, he explains the functions of external and internal accounting. He devotes a section to expose costs relativity and the two kinds of problems: ones of technical nature (input factors) and ones of an economic nature (input valuation). He explains the formation of the company cost price through a model representing its inorganic structure:</p> <ul style="list-style-type: none"> <li>• basic or direct cost = raw materials + manpower</li> <li>• industrial cost = basic cost + factory overhead expenses</li> <li>• exploitation cost = industrial cost + financial expenses</li> <li>• company cost = exploitation cost + administration expenses</li> </ul> <p>He classifies the systems of recording and representing cost accounting data on the basis of two criteria: 1. the kind of valuation used, historical system (or <i>a posteriori</i>) and a standard system (or <i>a priori</i>), and 2. the core considered as essential in the accounting system (job order system or production centers system). He exposes the three interfaces that Schneider considers between internal and external accounting:</p> <ul style="list-style-type: none"> <li>• radical monism</li> <li>• moderate monism</li> <li>• dualist system</li> </ul> <p>He describes briefly the different calculation methods in the case of joint production of a variety of co-products (allocation, sub-products, subtraction, and recovery), as well as the functioning of cost accounting on the basis of standards.</p>	<p>His main contribution is the introduction and spreading of Schneider's thought in Spain.</p>

Authors	Works	Contents	Other comments
Jose <b>Castaneda Chornet</b> professor of economic theory at the Universidad Complutense de Madrid	<i>Apuntes de contabilidad de empresas industriales</i> (Notes on accounting for industrial companies) (A) 1st edn. 1959.	<p>Textbook. The author proposes a chart of accounts structured according to some kinds: kind 0, "cuentas yacientes" (lying accounts); kind 1, "financial accounts"; kind 2, "expenses and neutral products"; kind 3, "not recorded in auxiliary books"; kind 4, "expenses and costs recorded in auxiliary books"; kind 5, "of free disposal (auxiliary exploitations)"; kinds 6 and 7, "costs centers"; kind 8, "products units"; and kind 9, "sales costs and results."</p> <p>According to the author's definition, the objective of industrial accounting is the cost finding with a double purpose – on the one hand, to decide the sale prices of our products in order to fix the desired profit and, on the other hand, to check the running of the production and the earnings of the company.</p> <p>With regard to the costs classification, he distinguishes between those predicted and actuals, only known at the end of the manufacturing process. He calls the latter effective or accounting costs. Both must be compared in order to know the deviations. He makes also a distinction between prime or basic costs (raw materials and direct manpower) and indirect ones (factory overhead costs, company general costs, and sales costs). Cost finding is explained according to the structure traditionally accepted by other authors:</p> <ul style="list-style-type: none"> <li>• basic costs: raw materials + direct manpower</li> <li>• manufacturing costs: basic costs + factory overhead costs</li> <li>• industrial cost: manufacturing costs + company general costs</li> <li>• total cost: industrial cost + sales expenses</li> </ul> <p>As to the interface between industrial and general accounting, the author presents three possibilities:</p> <ol style="list-style-type: none"> <li>a) keep one accounting only</li> <li>b) keep an autonomous industrial accounting wholly developed, only synthetically transferred to the general accounting</li> <li>c) keep an autonomous closed industrial accounting considered as belonging to a third</li> </ol> <p>The author also studies the allocation of indirect costs, proposing several calculation methods, such as simple division, weighted, on a different basis, and per cost center.</p>	Despite being notes on lessons explained in the classroom, the book is an excellent exposition of the state of the art at a theoretical and practical level.
Alvaro <b>Fernández Suárez</b>	<i>Los costes de comercialización</i> (Commercial costs) (D) 1st edn. 1961	<p>It is a theoretical informative work. Following the works of Neuner [1954] and Juan René Bach [1943], the author makes a superficial analysis.</p> <p>He distinguishes between the accounting of company commercial cost (he adds the production cost to find the total cost of the product) and the social commercial cost or cost in macroeconomic terms; that is, the expenses made by the community in the activities that bring the products to the final consumers.</p>	Paper presented before the Asamblea de las Cámaras de Comercio, Industria y Navegación de España (Assembly of Commerce, Industry, and Navigation Chambers of Spain)
Luis Miguel del <b>Pino Barrera</b>	<i>Sistema moderno de contabilidad agrícola: texto con su agenda-diario</i> (Modern system of farming accounting: text with diary) (B) 1st edn. 1962	<p>Informative text. Its only contribution worthy of mention is the proposal of a general chart of accounts for farming. However, its approach is monistic and the proposed utilization accounts are neither accompanied by explanations on their functioning nor by the cost finding of the products.</p>	The book is based on the bibliography of the 30s; consequently, it is rather out-of-date.

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Joaquín <b>Bastarós Tolosana</b> Bachelor of Commerce; Chartered Auditor; Graduate in Social Sciences	<i>Técnica del control económico en las cooperativas</i> (Techniques of economic control in the cooperatives) (B) 1st edn. 1963 2nd edn. 1965 3rd edn. 1968	Informative text. It deals with cost questions in the 5th part entitled "Costs and depreciation." This part is composed of three lessons. The first two, numbers 26 and 27, are expressly devoted to costs. In lesson 26, the different accounts containing specific cost elements by cooperatives are explained (raw materials, manpower, factory overhead expenses, supplies and alien services, and general expenses of the cooperative). Lesson 27 is devoted to what the author calls applied costs. In this lesson, the "costs statements" of this type of enterprises are explained. They are merely the grouping of expenses of a varied nature known generally as production, sale, industrial, and total cost. direct raw materials + direct manpower + factory costs = industrial cost industrial cost + sale expenses + administrative expenses + financial expenses = total cost	The analysis is superficial and of no special interest.
Juan Vives <b>Segura</b> secretary general of the Union of Iron Foundry Workers of Barcelona; manager of the company Fundiciones Arques, of Barcelona	<i>Contabilidad analítica simple para fundición</i> (Simple analytical accounting for foundries) (B, C) 1st edn. 1964	Practical text. For the author, cost accounting has the objective of reducing costs without increasing administration expenses. He proposes a simple system gathering with all the basic elements to determine cost, with possibilities to break the process into intermediate stages if so required. He proposes a grouping of products such as metal, casting, machine, males, etc. In every group will be distinguished different factors such as raw materials, wages (including social security, bonus, etc.), and auxiliary expenses. To all these costs will be added depreciation, bank expenses, transportation, overhead, and direction expenses. Finally, the author presents a model of sheets, pricing type, as well as others to control client orders.	The book is a critic to the unnecessary complexity of some cost-finding systems, which are of almost impossible application for companies of smaller dimension. It aims to offer them feasible systems.
Luis <b>Carrascoso Mendizábal</b> Master of Science in Commerce; assistant professor at the Faculty of Political, Economic, and Commercial Sciences of Madrid	<i>Contabilidad de costes y Rendimientos Standard</i> (Cost Accounting Standard Yields) (D) 1st Vol. 1965 2nd Vol. 1966	Textbook. The author bases his analysis on the German thought and on Schneider's line of reasoning. On this basis, he proposes a cost classification with regard to their necessity instead of on their fixed or variable nature because he considers it more right for the categorization to be into necessary and unnecessary costs rather than into fixed and variable. He also distinguishes among historical cost ( <i>a posteriori</i> ), estimated cost or pricing (calculated <i>a priori</i> on the basis of the experience of previous years), and standard cost (a cost calculated on a more scientific basis to be obtained according to the pre-established plan). He professes an organic conception of the cost-finding process and distinguishes in this respect the following stages: application, classification, location, and allocation. He also deals with the analysis of the differences between the allocation model of full cost and direct cost. In this regard, he highlights that they are not opposite systems but different ways to find the costs that serve different purposes.	In 1966, the author published the second volume of his work which has a subtitle of <i>Estructura Económica de la Contabilidad</i> (Economic Structure of Accounting). The work is of a much more general nature than the previous one; and is structured in three parts, devoting a chapter to the explanation of the French Accounting Plan of 1957.

Authors	Works	Contents	Other comments
Jesus Maria <b>Landa Garamendi</b> professor at the Deusto University and at the I.N.S.I.D.E. (International Institute of Business Administration)	<i>Contabilidad analitica</i> (Analytical accounting) (C) 1st edn. 1966 2nd edn. 1973	<p>The first part of the work deals with the essential concepts of cost accounting (cost and cost price, cost components, classification of charges in general accounting and cost accounting, calculation period, actual costs and standard costs systems, framing of analytical accounting within management control).</p> <p>The second part deals with:</p> <ul style="list-style-type: none"> <li>• materials control (classification, order and reception, inflows and outflows, stocks, control of products in process, goods returns, sub-products, etc.),</li> <li>• manufacturing control (classification of charges or cost concepts, division of the company in production centers, charge allocation to the centers, allocation of the general department and auxiliary services costs, and cost calculation of production units),</li> <li>• distribution control (definition and enunciation of the commercial expenses features, allocation of commercial charges to the costs and cost prices).</li> </ul> <p>The third part of the book deals with the functional organization, the place of analytical accounting in the organizational structure of the company, and the accounting organization. Moreover, the French Accounting Plan of 1957 is the object of deep study. In turn, the Sislog Accounting Plan of 1932, the German Plan of 1937, and the General Accounting Plan of the Spanish Institute of Account Auditors of 1962 are briefly analyzed in the chapters devoted to analytical accounting.</p>	textbook addressed to the students of the Deusto University and I.N.S.I.D.E.
	<i>Contabilidad analitica aplicada</i> (Applied Analytical Accounting) (C) 1st edn. 1967	<p>It is a concealed second edition of the first work <i>Contabilidad analitica</i>, although improved and extended. The structure is identical, with the exception of the third part that presents an appreciable improvement with regard to the previous work. In fact, it introduces a section devoted to the establishment of standards and estimates or predictions. For this purpose, three chapters are dedicated to an analysis of the formulation of the standards to establish, the basis for their determination, the calculation and valuation of raw materials, the direct and semi-direct manufacturing and commercial costs, and fixed charges or structure costs of centers, sections, and departments.</p>	
	<i>Como implantar la contabilidad analitica</i> (How to implant an Analytical Accounting) (C) 1st edn. 1972	<p>In his third work, <i>Como implantar la contabilidad analitica</i>, besides the questions already dealt with in the two previous works, the author explains a direct-costing model, laying stress on its suitability for the profitability analysis by products and production centers.</p>	Despite the influence exerted by French standardization on the author, he considers analytical accounting as an extra-accounting complement of general accounting.

Authors	Works	Contents	Other comments
J. Aragón Soldado, J. Aragón Rodríguez, and E. Aragón Rodríguez	<i>Tratado de Contabilidad Analítica. Teoría y práctica de los costes "Standard"</i> (Treatise on Analytical Accounting. Theory and practice of "Standard" costs) (D) 1st edn. 1966	In the first part of the work, the authors deal with the basics for establishing a cost accounting organization of the company (production organization, organization and responsibility chart), production planning (job orders, instructions on working procedures, methods engineering), and departments organization (materials and supplies, auxiliary services, manufactured products, containers, and packaging). In the second part, they deal with the standard cost system and expose the different points and procedures (objectives, definition, constant production or production by orders placed), costs finding (machine hour cost, direct labour hour cost, commercial distribution cost, direct manpower hour cost, supplies cost, materials cost), and allocation of general expenses. The third part is devoted to explain the launching of the standard cost system through a collection of practical examples. The fourth part describes the main kinds of reports provided by cost accounting: quality of the labor performed, stocks, production costs of a center, etc., to inform different users: a center foreman, center, division, or department heads; executives of the sales department; director of the sales department. The work ends with a series of cost reports compared to the average of reports submitted in general at the industrial branch to which the company belongs.	It presents the curious circumstance to have been written by J. Aragón Soldado in collaboration with his two sons.
José María Ventosa Rostch	<i>Contabilidad analítica de explotación: (costos)</i> Analytical Accounting of manufacturing (C) 1st edn. 1966	Informative text. First of all, the author presents the basics of cost finding; that is, the necessity for knowing the cost prices, the frontier between general accounting (external accounting) and industrial accounting (the author uses this expression as a synonym for internal accounting), orientation of industrial accounting toward management, organization of the productive process. Thereafter, he deals with the expenses or charges and their classification criteria in both general accounting and industrial accounting. He also deals with the calculation methods of cost prices. Among them, he analyzes the empirical methods, job-order costing method when individual production centers or departments work on a variety of products rather than just one, homogeneous centers method, standard cost accounting, activity-based costing, direct costing, marginal costing, and the George Perrin method. On the other hand, he criticizes the use of the "empirical methods" that define on the whole simplistic techniques to calculate cost prices. These techniques have been put into practice since the beginning of the century and were the first used by industrial accounting. He thinks that they are insufficiently analytical and old-fashioned because they make the allocation of general expenses by means of cumulative supplements, a practice that according to the author "is presently eradicated from industrial accounting."	It is a handbook on cost calculation whose main virtue consists of its contribution to spread the most advanced accounting techniques of its time.
Francisco Rodrigo	<i>Contabilidad Marginal</i> (Marginal Accounting) (D) 1st edn. 1967	Theoretical-practical handbook. The author supports the use of marginal costing for two main reasons. On the one hand, because he does not value the full-cost method, which he calls the "classic method," in the sense of old passé. However, he recognizes that it may be useful with regard to investment decisions. On the other hand, he recognizes that direct costing has inaccuracies. It is based on a complete differentiation between fixed and variable costs. However, it is not always as easy to make this distinction as it might appear at first sight. The author thinks that marginal costing is based on more scientific foundations. It completes the direct costing method with an analysis of variances of the costs directly or indirectly allocable according to the activity level and the maximization of total benefit. This is a question that is linked to the production capacity of the firm and has to consider the margin of the different products, the technical conditions of the firm, the knowledge of its possibilities, etc., in order to be able to choose the most interesting production.	In the arguments presented to criticize full-cost models is visible the influence of Schneider's thought, but this author is not quoted. The same omission occurs with regard to the division of cost.

Authors	Works	Contents	Other comments
Manuel Domínguez Alonso professor at the Higher School of Business Administration (ICADE); instructor of costs and budgetary control of the National Service for Industrial Productivity of the Industry Ministry	<i>Contabilidad microeconómica: Técnicas fundamentales de contabilidad microeconómica interna, presupuestaria y crítica</i> (Microeconomic Accounting: Basic techniques of internal, budgetary and critical microeconomic accounting) (A) 1st edn. 1967	Textbook addressed to the students of ICADE. On the basis of the cost definition [Pedersen, 1932; Schneider, 1949; Mellerowicz, 1936], the author assigns to cost accounting as a general function and objective the finding of prices and the rational direction of the production. As specific objectives he assigns it the valuation of the elements of inventory, the calculation of standard costs, special calculations to make occasional comparisons, etc. Moreover, he explains the different components of a cost accounting system: cost elements, cost centers, cost bearers, and stages of the building cost process (contraction and classification of the expenses, time period adjustment, conversion of expenses into costs, location [immediate or postponed allocation], and obtaining products and services). He continues presenting the accounting approaches of radical monism, moderate monism, and moderate dualism. Afterwards, in the remaining chapters, he develops the questions of cost calculation (study of components, centers and bearers), and the study of systems for accounting recording and representation: systems of costs composition, actual cost, job orders, process-based costing, mixed cost, preventive costs, estimated costs, standard costs, predictive costs, and direct costs. Apart from this, he introduces a chapter on the estimation and statistical control of cost functions. The author offers three methods to identify costs: approach by accounting methods; identification of the cost-production relationship by technical means; statistical identification.	The book is a compilation of the main questions of an accounting nature that an executive of a company has to know. He completed later these notions with a set of problems and exercises that were published in two separated books: <i>Ejercicios prácticos de contabilidad de costes: Control presupuestario y análisis de balances</i> (Practical exercises on Cost accounting: Budgetary control and balances analysis) (1968a) and <i>Ejercicios prácticos para el desarrollo de la disciplina "Contabilidad especial"</i> (Practical exercises to develop the subject "Special accounting") (1968b).
Manuel Domínguez Alonso Luis Velasco Roa professor at the Higher School of Business Administration (ICADE)	<i>Control Económico de Empresas</i> (Economic Control of Enterprises) (C) 1st edn. 1969	Textbook. In the first chapter, the author explains the general concepts of cost theory. The second chapter is devoted to the definition, functions, and objectives of internal accounting and its approaches: radical monism, moderate monism, and dualism. Chapters 3 to 9 are dedicated to the study of the elements of a cost accounting system, that is, components, centers, and cost bearers. In chapter 10, the authors expose the current approaches to structure a cost system: Anglo-Saxon, French, German, Spanish, and Italian. Chapters 11 to 13 study the different costs systems: by manufacturing orders, processes, mixed orders, or works and cost centers. Chapters 14-18 are devoted to the study, definition, and determination of different concepts, such as preventive costs, estimated costs, and, above all, standard cost, as well as to the operational process to implant and apply it. Finally, the book deals with the programming and control by PERT. The work has a practical nature that is complemented by a wide collection of exercises.	According to the explanations of the authors, the work aims to satisfy the needs of the enterprises (executives, technicians, and administrative officers), as well as public-sector organizations in the field of cost accounting.
Enrique Moliné Bachelor of Commerce; industrial engineer at a textile company	<i>Contabilidad analítica de inmovilizaciones por decalco</i> (Analytical Accounting by "decalco" of tangible fixed assets) (D) 1st edn. 1967	The book deals with the questions regarding the accounting for tangible fixed assets, that is, reasons for depreciation, accounting forms, etc., all of it illustrated with practical examples. The only point of interest from the costs angle is a short reference to the concept of depreciation. It is considered not only as a charge in the accounting year linked to the valuation of assets or to the processes of replacement investment, but also as a cost to be incorporated by the centers to which the assets are assigned.	It is a very limited work because it is linked to the time when accounting by "decalco" was in fashion. As it is known, this accounting method was an attempt to arrange and to classify the information and the accounting of the companies by means of a pseudo-mechanical system, called "decalco."



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Ricardo <b>Idáñez Ballano</b> economist; head technician of the Economic Administrative Department of T.E.A.	<i>Coste estándar por secciones homógenas: Teoría y práctica de su aplicación</i> (Standard costing by homogeneous sections: Theory and practice of application) (D) 1st edn. 1969	The book begins with an introduction to the objectives of cost accounting to value certain assets, to know the product cost, and to control management. For this purpose, the author analyzes the concept of standard cost (maximum, medium, ideal, programmed) and the costs control systems. He presents the standard costing by sections as the device to solve the allocation problem of indirect costs. He allocates them to sections first and afterwards to products. Direct costing is presented as a means to find out the coverage margin of indirect expenses since it is the difference between sales income and sales direct expenses. In this regard, the author reveals its advantages and its drawbacks. He deals besides with the concept, shape, and calculation of cost functions. He finishes exposing the polemic on the distinction between short-term and long-term periods and the choice of the most suitable variable to measure the activity most linked to the expenses. He analyzes also the "famous chart of break-even point" as the author calls it. Likewise, the author handles in depth the matter of homogeneous sections which he considers the best system.	The author's practical training is felt in the whole book, whose main subject focus on the standard system by homogeneous sections. His ideas on the matter were often quoted by Spanish authors subsequently.
Antonio <b>Herrero Alcon</b> doctorate in agricultural engineering	<i>Contabilidad para la empresa agraria</i> Accounting for farming (B) 1st edn. 1969	It is an informative book. The part regarding costs is developed in chapters 14 and 15, volume 2. It only mentions the use by double-entry of the agricultural production accounts (wheat, cattle, chick peas, etc.) and preparation ones (fallow fields, expected harvest, etc.) as a means to establish production unit costs. These accounts are defined by the author as typical accounts of internal accounting. He even conceives them as divisible by stages, such as newborn piglet, baby piglet, piglet grown up, and fat pig. In such a way in every stage, the product-in-process accumulates and passes on its costs to subsequent stages, the process continues to the final stage when total costs are accumulated in the finished product. The author conceives that these accounts function as mixed accounts in a monetist system. They are charged with production costs and credited by the value of the product. Their balance represents, consequently, the benefits or the losses of the manufacturing.	The work is published in two volumes and constitutes an informative study of general accounting practices in agriculture.
Enrique <b>Ballester</b> doctorate in agricultural engineering; economist; professor at the Technical School of Agricultural Engineering of Madrid	<i>Contabilidad Agraria</i> (Agricultural Accounting) (B) 1st edn. 1969 2nd edn. 1973	Textbook. It deals properly with financial accounting of farms. Nevertheless, chapters 9 and 10 describe the production cycle and questions related to costs, such as definition, differences between expenses and costs, classification of expenses and costs with respect to their nature (raw materials, wages, diverse expenses, electric power, contracting and piecework, depreciation). All of these expenses and costs categories are defined and explained as well as the parts into which a company exercising this specific economic activity is divided: cultivation (wheat, barley), livestock (sheep, cattle, chickens), forest, fallow fields. The accounting treatment of sections or cost centers, cost allocation to them, remuneration estimated for the work of the owner and his family, etc. are additional topics.	Handbook addressed to the students of the Technical School of Agricultural Engineering of Madrid
	<i>Técnica de la Industria Papeler</i> (Paper Mill Technique) (B) 1st edn. 1970	The work informs the creation of the Central Commission of Accounting Standardization at the beginning of 1966, precedent for the Institute of Accounting Standardization that in 1968 presented the first proposal of the General Accounting Plan. After a very short description of the activity of the paper-mill industry, it looks through the different accounting groups considered in the plan and their adaptation to the sector. Among them, it chooses the questions examined in the Group 0, called "Analytical Production Accounting," that is defined as an accounting capable of great flexibility especially devoted to control the prices of manufactured products. The starting point for this control, in order to guarantee better the future of the company, is a budget, carefully prepared with pricing. The information will be recorded by double-entry, both in kind and in monetary units when possible. It also mentions the need to analyze the variances between budgeted amounts and actuals.	It is a paper presented before the Assembly of the Technical Economic Committee of the Paper Mill Industry. Its main contribution is the adaptation of the Accounting Plan to the manufacturing of paper, cardboard, card, and similar products.

Authors	Works	Contents	Other comments
<b>Juan Cruz Larrea Arechavala</b> professor of the Higher Center of Applied Studies; Master of Science in Commerce; deputy accountant general of the Spanish National Telephone Company	<i>Contabilidad de Costes I: Los sistemas para el cálculo de costes</i> (Cost Accounting: cost calculation systems) 1st edn. 1971a (C) <i>Contabilidad de Costes II</i> 1st edn. 1971b (C) <i>Contabilidad de Costes III</i> 1st edn. 1971c (C) <i>Contabilidad de Costes IV</i> 1st edn. 1971d (C)	Textbook. The first volume deals with the general questions regarding the cost finding and identification of the objectives of a cost accounting system: finding the total benefit, finding the benefit per product or service, and management control. As regards to the finding cost systems, the author makes a double classification with regard to the allocation level and to the allocation method. Moreover, following Schneider, he distinguishes three accounting options: radical monism, moderate monism, and dualism. The second volume has two parts: the full-cost systems and the systems of homogeneous sections. In the first part, the author handles the foundations of the inorganic system and in the second he deals with the organic, that is to say, the organization by homogeneous sections or cost centers. In the third volume, the author explains the systems of direct costing and marginal costing. The last volume is devoted to standard cost accounting.	textbook for the students of the Higher Center of Applied Studies
<b>Victor Arana</b> Master in Law; Bachelor of Commerce Officer of the Exchequer	<i>Contabilidad de Empresas</i> (Accounting for companies) (A) 1st edn. 1971	It is an informative book, supported by both a practical sense and a solid theoretical foundation. It is mainly addressed to students and professionals of corporate accounting. It has three parts. The first is devoted to general accounting; the second deals with analytical accounting and studies its concept, scope, and contents. After exposing the objectives of analytical accounting, it looks through the different cost systems in the course of its history: classic system, sections system, direct costing, standard costing, ending with a reference to other cost systems, such as the one by George Perrin [1968] and differential costs. The second part finishes with an overview of the systems and their accounting procedures. The third part is consecrated to planned and standardized accounting. A chapter is devoted to Class 9 "Analytical Accounting of Production" within the French Accounting Standardization (1957 Plan) and another to the same within the Plan Sisorg (Accounting Organization System) proposed in 1932 by Ignacio Aspichueña, Master of Science in Commerce and Chartered Auditor, which was the precedent for Spanish Accounting Standardization.	The book was awarded the Prize Ediciones Deusto commemorating the foundation of the School of High Commercial Studies of Bilbao.

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<p><b>Andrés Fernández Romero</b> economist; Bachelor of Commerce; trustee-director general of Consultores Españoles, S.A.</p>	<p><i>Contabilidad de Costes</i> (Cost Accounting) (C) 1st edn. 1971</p>	<p>The work is divided into two parts. In the first chapter of the first part, the author explains the objectives of cost accounting and the cost description (nature, customers, etc.) in order to control them; the place where the costs originate (costs by sections), in order to control every section; the cost of the finished products in order to value the stocks, to find out the result per products, establish sales prices, stop unprofitable production, etc.; the production and sales program in order to maximize profit, and the meriting models (radical monism and radical dualism).</p> <p>In the second chapter, the author studies the calculation procedures and the difficulties of a cost system derived from the allocation of indirect costs (in proportion to direct labour hours, in proportion to the value of direct costs, in proportion to the value of direct manpower, in proportion to the value of direct materials, in proportion to the weight, volume of each product, etc.). Moreover, he defines two basic cost systems: full costing (absorption costing) and direct costing (marginal costing), as well as two methods historical costs and standard costing. The third chapter deals with the "subsystem" of homogeneous sections, detailing the application of the method and the finding of the unit product cost.</p> <p>In chapter 4, the author analyzes the direct costing system as a solution to the disadvantages of the homogeneous sections model (complications due to the excess in breaking down, arbitrariness in allocation, etc.)</p> <p>Chapter 5 compares the results of full costing and direct costing, stressing the advantages and drawbacks of the latter.</p> <p>In the second part, the author explains the standard costing systems (traditional and by homogeneous sections) by analyzing not only the application peculiarities, but devoting a section to compare them with historical costs.</p> <p>Informative textbook. The work is structured in two parts. In the first, the factors that determine the cost amount and structure are studied. The second describes the applications and limitations of the critical point and the marginal analysis at the time of decision making.</p> <p>As to the factors determining the level and structure of the costs, the authors think that the main ones are the price of production factors (raw materials, manpower, taxes, transportation, etc.) and the production batch, whose minimal amount can be calculated through direct costing.</p> <p>They are also concerned with the utilization of the production capacity and consider two kinds of fluctuations with regard to a full use of this capacity: seasonal variations and cyclical variations. Following Gutenberg [1970], they distinguish three adaptation forms of production capacity to seasonal and cyclical variations: adaptation in intensity, time adaptation, and amount adaptation.</p> <p>In the second part, the authors study the break-even point dealing with its analytical and graphical determination as well as with the usefulness of its analysis, <i>a priori</i> and <i>a posteriori</i>. The explanations are illustrated with practical exercises.</p> <p>The part finishes mentioning the opinion of Joel Dean [1942] on the limitations of break-even point analysis.</p>	<p>Although the work is published in two books, they are properly the two parts of a notebook containing the notes taken in class on the matter "cost accounting," a component of Business Administration at the Higher Center of Applied Studies. The theoretical explanations are illustrated by practical examples.</p>
<p><b>José María Veciana Verges</b> doctorate of Science in Economics and Social Sciences; professor at the Higher Center of Applied Studies.</p> <p><b>Enrique Genesca Garrigosa</b> Master in Economics and Law; professor at the Higher Center of Applied Studies.</p>	<p><i>Los costes como base para la toma de decisiones</i> (Costs as basis for decision taking) (D) 1st edn. 1973</p>	<p>The work, that studies the cost applications for decision making on the basis of operations research, has an extensive bibliography, particularly of foreign authors.</p>	

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Oscar Luengo Fernández	<i>Cálculo de costos por el sistema de las dos funciones características</i> (Cost calculation by the system of the two characteristic functions) (D) 1st edn. 1973	Informative. The author explains by means of a practical example the "system of the two characteristic functions" or Cost-Volume-Profit analysis for the calculation of "breaking even." He presents this system as a revolution with respect to the normal or classic systems (by absorption), due to its easy operation, simplicity, and the information that it provides for the determination of the sale price, outsourcing decisions, etc. Through a very simple practical example with two selling products, he develops the calculation of the break-even point. To do it, he only assigns to the product the material and manpower costs, which he considers proportionally variable, without any more precision. To keep this method, he recommends carrying on annual revisions of the characteristics of these functions in order to bring changes in structure, wages, raw materials, etc., up to date. These changes will be directly recorded on cost cards for each product on which its sale price will also appear.	Didactic report in which without any conceptual exposition, the direct costing model is presented interlinked with the break-even calculation. No reference is made to its theoretical foundations or to its advantages and drawbacks.
Francisco Morales Moreno accounting professor at the College of Business Administration of Jerez de la Frontera, Master of Science in Commerce, Chartered Auditor	<i>Temas de Contabilidad de Gestión</i> (Management Accounting Items) (A) 1st edn. 1974	Informative textbook. The author devotes the first chapter to find out the amount needed as operating capital. In this respect, he mentions two kinds of alternative methods: the indirect and the direct. Among the latter, he indicates the terms of encashment and payment [Calmes, 1911], funds analysis [Fernández Pirla, 1957], the relationship to the break-even point mentioned by Gesteberg [1964] with regard to the management of the Cash Department, etc. Afterwards, he presents for each method two practical examples of calculation: the one very extensive showing the calculation method step-by-step and the other showing only the main lines. He also explains direct costing, analyzing it and presenting current arguments as to its advantages and drawbacks. He follows by studying standard costing and its relationship with direct costing. He goes through the form to use standard costs and stresses one of its most important aspects, the analysis of variances. The following chapter is devoted to provisional accounting. After indicating its concept, defining its objectives, and the reasons for its "recent" incorporation into the accounting world, he deals with its action program, explaining which partial programs are necessary in order to be able to itemize clearly the previous assumptions to split the activity of the company: sales, production, administration and financing, and investments. In the chapter dedicated to accounting systems, he explains first of all their concept and classification. Subsequently, he refers to the principles and rules that lead us to an adequate perception of the everyday economic and financial events of the company and permits reaching the objectives of accounting. In this respect, he distinguishes among three accounting approaches: "patrimonial" approach [Vincenzo Masi, 1962], "profit" approach [Gino Zappa, 1939], and matrix accounting. As an example of the author's modern conception and approaches to accounting, let us mention that he considers accounting an empirical science that has recently taken great steps forward in its theoretical foundation, thanks mainly to Richard Mattessich among others and his work <i>Accounting and Analytical Methods</i> [1964], a basic mainstay of accounting axiomatization. Like in previous chapters, explanations on matrix accounting are developed with practical examples.	The work contains a suitable theoretical basis that is accompanied by a set of very interesting exercises. It is preceded by a prologue, written by Jose Rivero, who at this time was professor of accounting for Companies and Cost Statistics and director of the Accounting Department at the University Complutense of Madrid.

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<p><b>José Luis Alfaro Alonso-Miñón</b> Bachelor of Commerce; accountant of the State</p> <p><b>José Luis Páined Pérez</b> accountant of the State</p>	<p><i>Contabilidad General y de Empresas</i> (General Accounting and for companies) (4) 1st edn. 1975.</p>	<p>Textbook. Following Lawrence [1953], the authors define Cost Accounting as "the accounting that aims to apply the principles of the general accounting to record the production expenses. In such a way the accounts kept with regard to production and sale can orient the company management to determine the production costs and to achieve an economic exploitation more efficient and lucrative".</p> <p>Following Fernandez Pirla [1957], they distinguish among classification, placement and allocation of costs. This shows the cost formative structure, according to an inorganic conception of same.</p> <p>They look briefly through the components of industrial cost: raw materials, manpower, industrial overhead.</p> <p>In the section devoted to estimated costs, historical costs and standard costs, they offer a general idea of them and distinguish two methods to keep cost accounting: by historical cost or <i>a posteriori</i> and by estimated costs or <i>a priori</i>.</p> <p>It is a theoretical-practical work that develops a sector application of cost accounting in a very pragmatic line. It offers:</p> <ul style="list-style-type: none"> <li>• an analysis of the chart of accounts used presently by the savings banks and its adaptation to the General Accounting Plan for better service to savings banks;</li> <li>• a management analysis according to the present needs of speed and effectiveness demanded by the dynamism of the times;</li> <li>• a revision of the accounting cycles and the adaptation of analytical accounting to general accounting;</li> <li>• an improvement of the information in order to obtain a more effective management; and</li> <li>• an analysis of the production account with its repercussions and orientation at different departments.</li> </ul> <p>After the introductory chapters dealing with accounting planning in general and its application to financial entities in particular, the author proposes a chart of accounts for savings banks, studying in detail the main and auxiliary sections.</p> <p>Chapter 4 is devoted to the analysis of internal activity based on analytical accounting. The following chapter exposes new accounting orientations, including the application of the direct-costing model to a savings bank. The author devotes chapters 7 and 8 to management control at financial enterprises and to its application for savings banks.</p>	<p>The book has 23 chapters of which chapter 20 is devoted to cost accounting. Its contents focus on the objectives of this accounting, offering a rather superficial view of estimated, historical, and standard costs.</p>
<p><b>Germaín Pérez Ollauri</b> Master of Science in Commerce; Chartered Auditor; doctorate of Science in Economics and Business Administration; professor at the Faculty of Economic Sciences; director of the Accounting Department and deputy director general of the Spanish Confederation of Savings Banks</p>	<p><i>Planificación contable, Contabilidad Analítica y análisis de gestión en las Cajas de Ahorros</i> (Accounting planning, Analytical Accounting and management analysis at the Savings Banks) (D) 1st edn. 1977</p>	<p>The work studies accounting at savings banks owing especially to the need for analyzing the costs. It combines a pure research methodology with a practical approach on account of the author's professional dedication.</p>	



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